

# MANUFACTURERS' RECORD

A Southern Industrial, Railroad and Financial Newspaper.

VOL. XVI. No. 15.  
WEEKLY.

BALTIMORE, NOVEMBER 16, 1889.

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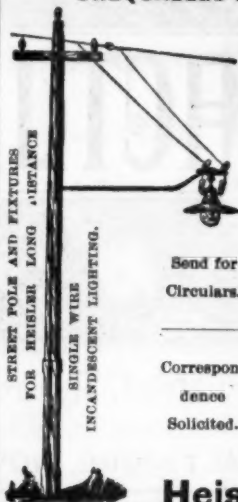
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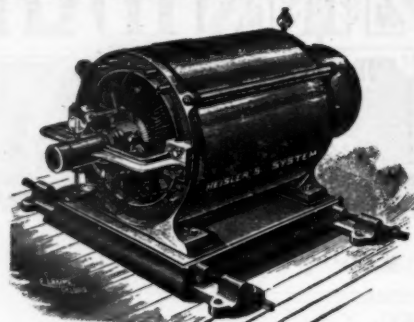
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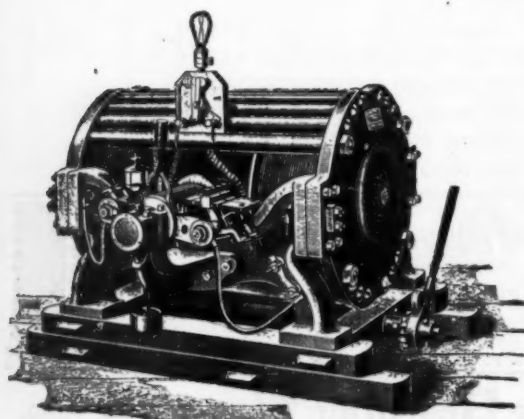
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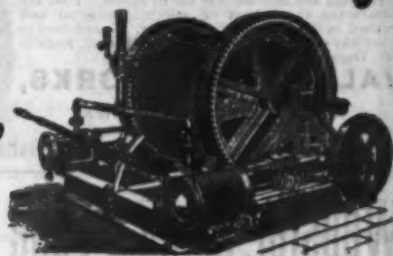
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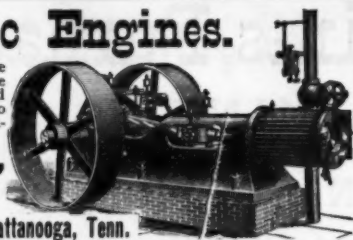
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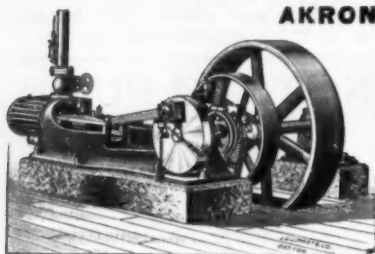
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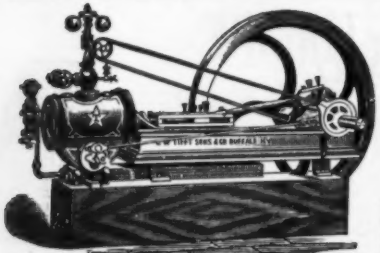
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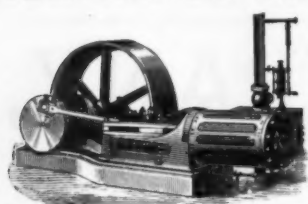


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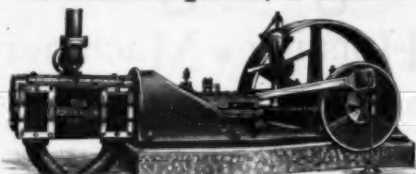
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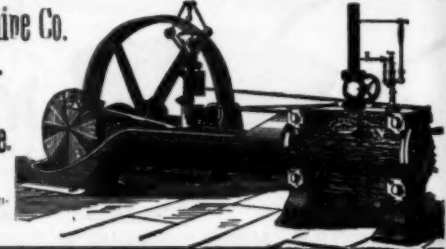
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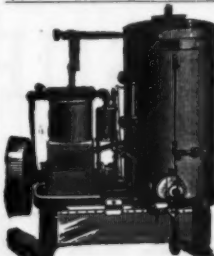
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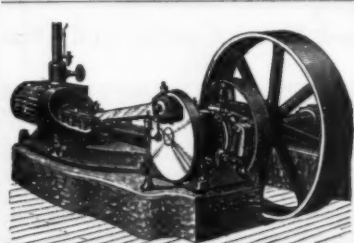
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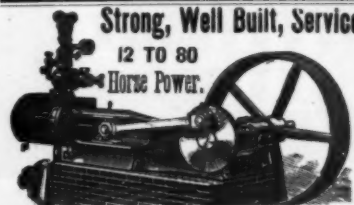
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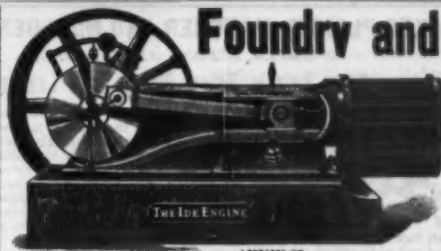
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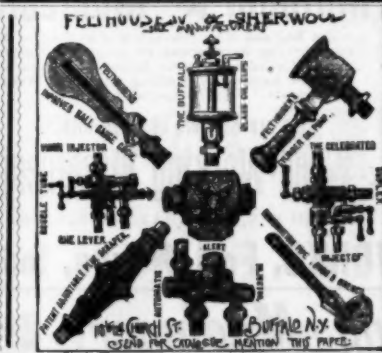
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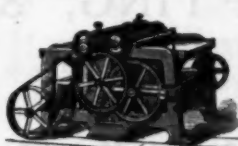
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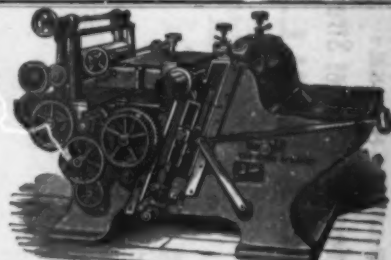
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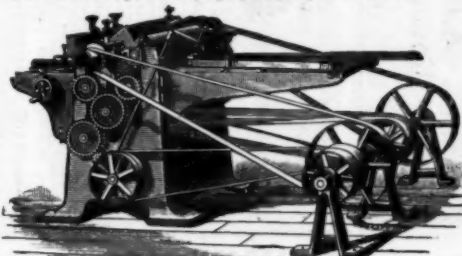
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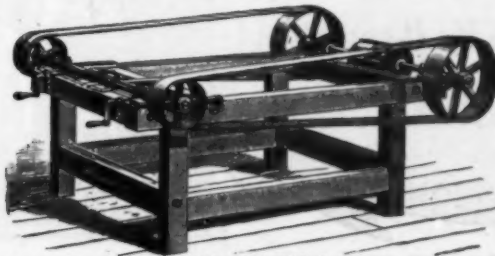
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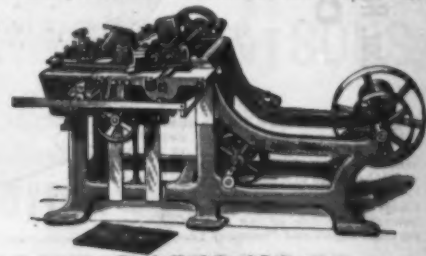
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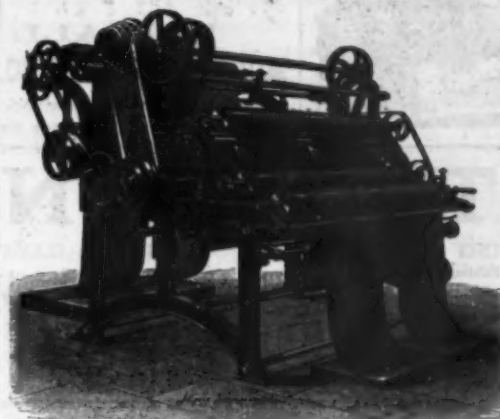
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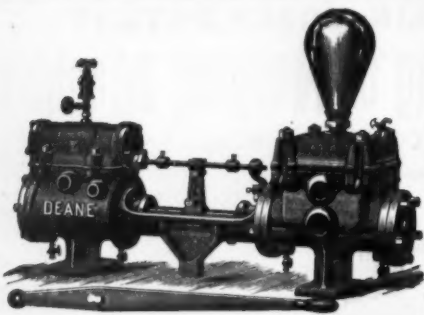
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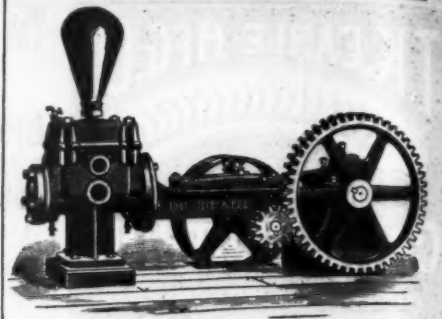
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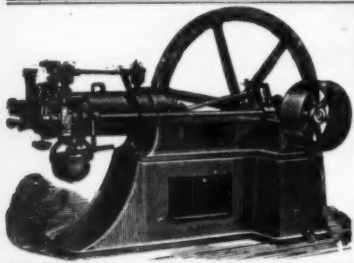
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# Manufacturers' Record.

PUBLISHED EVERY SATURDAY BY THE  
MANUFACTURERS' RECORD CO.

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WM. H. EDMONDS, BUSINESS MANAGER.

OFFICE,  
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NEW YORK OFFICE, - - - 132 NASSAU STREET.

THOMAS P. GRADY, *Southern Staff Correspondent*,  
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BALTIMORE, NOVEMBER 16, 1889.

## To Draw Capital South.

With a view to attracting the attention of the entire financial interests of the United States to the growth of the South, to the advantages of this section and to the opportunities for profitable investments of all kinds that are to be found in every State, from Maryland to Texas, the MANUFACTURERS' RECORD will shortly publish a "Special Bankers' Edition," a copy of which will be sent to every bank (national, State and private) in the United States, to loan and trust companies, brokers, leading insurance companies and financial institutions generally. Nothing of this character has ever before been undertaken in this country, and never before has such an opportunity been afforded to reach every financial institution in the United States. The value of this to the South cannot be overestimated. It will draw the attention of the entire banking and allied interests of the whole country to the marvellous advancement and possibilities of the South. For Southern bankers, owners of mineral and timber properties that are for sale, real estate agents, transportation lines, and all others who wish to reach the moneyed men of the whole country, this "Special Bankers' Edition" is the best advertising medium ever offered. It will result in attracting many millions of dollars to the South for investment, and in inducing many thousands of people to make a personal investigation of the advantages and the resources of this section.

THE Talladega Iron & Steel Co., of Talladega, Ala., is having an active demand for its pig iron from leading iron and steel manufacturers in Pittsburgh. This company is composed mainly of English capitalists, and its manager is a well-known English iron-maker. The iron so far produced is said to class as Bessemer, and is made from high-grade local ores.

Why not subscribe for the MANUFACTURERS' RECORD? Price \$4 per year or six months for \$2.

## The One Great Drawback.

The immense undeveloped wealth of the South is universally conceded. The opportunities open to men of moderate means to become wealthy by wise investments are fully understood. The numbers availing themselves of these openings are increasing in almost geometrical ratio. Every day—as our weekly issues testify—great and small enterprises are begun, and the scope they cover widens continually. All this adds to the material wealth of the whole country and to the individual wealth of thrifty Southerners. But all these enormous gains to the South have had, from the day they began, one great drawback. They have given to many individuals and communities throughout the South absurd ideas of the value of their lands and localities. In these days of patent outsiders and insides, the village weeklies furnish their readers with whatever is selected for them by the providers of miscellany for their columns. In this mass of matter are frequently accounts of the wonderful growth of new towns and the money made by the original land owners. Or else there are tales of the fabulous price some farmer has obtained for his worn-out land because some kind of valuable ore has been discovered in it. Then, too, there is a species of confidence operator, altogether too common, who travels around among the people, and, pretending to have found some valuable mineral on their land, persuades the unsuspecting innocents to pay him a fee for examining it and writing a report. His victims, dazzled by the glowing pictures of great wealth that will be theirs if they follow his advice, pay down their dollars cheerfully, read over and over with great glee the splendid report, and show it to all their neighbors.

No newspaper, no well-informed citizen, is at hand to explain to such honest but uninformed folk how great cities have sprung up magically in the midst of forests or old fields. They have none to tell them that the means for development was secured by the land proprietors taking capitalists into partnership; that the latter spent a great deal of money before any returns came from it; that had not such been the case the forests and the old fields would have remained as they were to this day. So in their simplicity these deluded people, thinking of what they have heard or have read, rejoice in bright visions of unrealized but expected wealth, and put tremendous prices upon property when anyone asks its value. The result is that there are hundreds of spots in the South, small towns and farming districts, that might have been humming to-day with the music of machinery, that have lost their opportunities for this generation at least. And there are at least as many more that will have offered to them, within a year or two, equally good opportunities, that will throw them away.

This foolishness—the result of a lack of information—is 'the one great drawback' to that universal progress which would send the sunshine of prosperity into the lowliest cabins and the stateliest mansions of the South. To dispel this ignorance, to enlighten the minds of the masses, is a work in which the South's agricultural teachers, its newspapers and its intelligent men of all pursuits might engage for the benefit of all.

THE heavy machinery of the Union Compress Co. at Charleston, S. C., was broken recently, and no work could be done until it was repaired. A link was broken in one press, and the cylinder was fractured. The link was one of two welded wrought iron bands, 9x9 inches square, that hold the machine in place. These are subjected to a strain of 1,500 tons whenever a bale is compressed. Heretofore, when links have been broken, they have been sent North for repair, but in this instance it has been done at home at the South Carolina Railway shops under the supervision of Master Mechanic J. M. Smith. To remove the cylinder and replace it with a sound one required the construction of a derrick strong enough to lift and lower 18,000 pounds. This was done under the direction of Mr. H. W. Crouch. The derrick is to remain a permanent fixture for use should a similar accident occur.

After describing these achievements the Budget says:

It is argued that if Charleston mechanics can do such work as this, there is no use for vessels from all these Southern ports being towed to New York when a shaft breaks or any accident such as that happens. Send them all to Charleston, where there is a ship-yard and extensive iron works that can do it equally as well, and as cheap.

We join with the press of that city in congratulations upon the possession of master mechanics and the necessary machinery for the accomplishment of such heavy work. But while all this may be new to Charlestonians, it is but an illustration of the changes from the old order to the new that the South is experiencing. Competent mechanics and powerful machines may be found in scores of inland as well as seaport towns, where their presence has done away with the expensive transportation and long delays which used to attend every breakage of machinery.

The successful prosecution of the iron industry has opened the way for the introduction of all others in which iron is the chief material employed; hence the great number of foundries and machine shops reported weekly in our Construction Department.

It is simply a question of time as to when the South will build all the machines needed in her borders, not excepting the locomotives to haul the trains over her railroads. Already the Charleston, Cincinnati & Chicago has at its new foundry and machine shop in Blacksburg, South

Carolina, all things required for locomotive construction, and as soon as the machinery can be set in place this company will begin to build its own engines. This indicates what can and will be done in the near future.

## Cotton Stalk Bagging.

Mr. J. M. Forshee, secretary of the Chamber of Industry of Wilmington, N. C., was in Macon, Ga., recently exhibiting samples of half-inch rope made from cotton stalk fibre. According to the Telegraph, he also had a sample of 2-pound bagging made from the same fibre. Mr. Forshee announces that machines have been invented for stripping the stalk and manufacturing the fibre into bagging, and that "the cost of the manufactured article will not be more than four cents per yard. One acre of cotton stalks will furnish enough fibre to make bagging enough to bale five bales of cotton, and as this is about five times as much as is needed, the excess will be used in manufacturing rope and for various other uses to which jute is now put."

IN this issue appears an interesting letter from a special correspondent, who writes of the new town of Linville, in the famed mountain region of Western North Carolina. The beauties of the "Land of the Sky" have been portrayed by the best pens of the day, and yet the theme is ever fresh, for the reason that it taxes the resources of description to secure any measure of just treatment. Linville can be made a paradise of delight for the resident and the tourist, and the gentlemen who have its future in charge certainly merit the fulfillment of their highest expectations. For the good of humanity the MANUFACTURERS' RECORD hopes to see Western Carolina become more thoroughly known that thousands of the sick, to whom a residence there would bring back health and vigor may learn of its advantages. No language can adequately describe the attractions of that country, and Linville is said to be one of the most favored spots of that favored region.

THE industrial issue of the Chattanooga Evening News is a most comprehensive performance in the way of descriptive advertising. The issue contains 32 pages of descriptive matter and advertisements, the whole presenting a thorough exposition of Chattanooga and the territory contiguous thereto as regards industrial establishments and natural resources. One has but to glance over this edition of the News to realize that Chattanooga has not only a great future, but a most impressive present. The city's marvellous growth is one of the most striking features of the general Southern boom, and the News is to be congratulated upon the thorough accomplishment of the task which its industrial issue involved.

### Blast Furnaces of the United States in November, 1889.

The American Iron & Steel Association has just completed an exhaustive inquiry into the present condition of the blast furnaces of the United States, noting particularly the new furnaces built and the old furnaces abandoned since the appearance of the last edition of its directory, about two years ago. In this inquiry great care has been taken to eliminate from the list of active furnaces or furnaces which can readily be put in blast all furnaces which do not properly belong to this list, and also to add to it all new furnaces which have been built during the last two years or which are now actually in course of erection. Furnaces which have no existence except on paper have been passed over without notice.

BLAST FURNACES BUILT AND BUILDING IN THE UNITED STATES ON NOVEMBER 1, 1889.  
Furnaces Completed November, 1889. Furnaces building Nov., 1889. Annual Capacity of Completed Furnaces November, 1889, in net tons.

STATES.	Anthracite.	Bituminous	Charcoal.	Total.	Anthracite.	Bituminous	Charcoal.	Total.	Anthracite.	Bituminous	Charcoal.	Total, Net tons.
Maine	1	1	1	3								6,000
Massachusetts	4	4		8								14,500
Connecticut	8	8		16								27,000
New York	25	4	10	39					439,400	185,000		699,400
New Jersey	18			18					303,845			303,845
Pennsylvania	141	73	16	230	1	4	2	7	2,965,000	62,500		3,027,500
Maryland	5	2	9	16					300,000	17,000		317,000
Virginia	13	19	32	64	4			4	367,000	47,500		414,500
West Virginia	6			6					180,000			180,000
Kentucky	4	3	7	14	1			1	77,000	12,000		89,000
Tennessee	10	9	19	38					300,000	99,000		399,000
North Carolina	2	2	2	6						7,200		7,200
Georgia	2	3	5	10					55,000	25,000		80,000
Alabama	32	12	44	88	6	2		8	1,133,000	144,000		1,277,000
Texas	1			1	2	2		4		8,000		8,000
Ohio	64	12	76	152	1	1	2	4	1,782,500	46,100		1,828,600
Indiana	2	2		4					30,000			30,000
Illinois	16			16	1			1	845,000			845,000
Michigan	1	26	27	54	1			1	15,000	426,500		441,500
Wisconsin	4	6	10	20					113,000	99,500		212,500
Minnesota												
Missouri	5	3		8					170,000	44,000		214,000
Colorado	2			2						60,000		60,000
Oregon	1			1						15,000		15,000
Washington	1			1						10,000		10,000
Total 25 States.	190	239	146	575	3	19	7	29	3,723,333	8,223,500	1,221,400	13,168,233

We present herewith a tabulated statement of the number and capacity of the furnaces completed on the 1st of November, 1889, in each pig-iron manufacturing State, and not transferred to the abandoned list, and of the number of furnaces then in course of erection in each State, specifying the fuel used or to be used.

Comparing the more important footings of the table above referred to with the corresponding aggregates presented in the Association's directory of two years ago, and adding some other comparative information, we have the following results:

Furnaces.	Nov., 1887.	Nov., 1889.
Whole number of completed furnaces	582	575
Anthracite furnaces	300	190
Bituminous coal and coke furnaces		
Charcoal furnaces	214	339
Number of furnaces building	30	29
Annual capacity of completed furnaces, in net tons	10,990,993	13,168,233
Annual capacity of furnaces building, in net tons	1,122,000	1,204,000

The whole number of completed furnaces on the 1st of November which have not been transferred to the abandoned list is 575, against 582 two years ago. The present total has been obtained by adding 41 absolutely new furnaces which have been completed within these two years and subtracting 48 furnaces which have been transferred to the abandoned list for various reasons—some because they have not been in blast for several years and are badly located, and others

because they have been torn down to make room for new furnaces. All the charcoal furnaces in West Virginia and several in Pennsylvania, Maryland, Virginia, Wisconsin and other States are among the number transferred to the abandoned list. The whole number of charcoal furnaces has been reduced from 168 to 146. A decrease of 10 in the number of anthracite furnaces, which includes those which use mixed anthracite and coke, has taken place, while there has been an increase of 25 in the number of furnaces which use bituminous coal and coke.

The number of furnaces which were actually in course of erection two years ago was 30, and the number now in course of erection is almost as large, 29. Of the new furnaces building 3 are anthracite, 19 are bituminous and 7 are charcoal.

the Iron & Steel Association, compiled his figures, work has been commenced on the foundation for 2 at Middlesborough, and contracts made to locate 2 others there. In Texas 2 are going up. In Maryland there are now 16 completed furnaces, including 2 new furnaces at Sparrow's Point built recently by the Pennsylvania Steel Co., and there are 2 building by the same company and one charcoal furnace building at Principio.

In the Northern States there is now very little activity displayed in the building of new furnaces. Pennsylvania is building only 5, Ohio 2, and Illinois, Michigan, Wisconsin and Minnesota each one. It is just announced, however, that Illinois will soon have 4 new furnaces at Chicago, but work upon them has not yet been undertaken, and hence they are not noted in this table. Of the 29 furnaces given as now under construction in the United States, 18 are in the South, and probably at least a dozen more are definitely secured and the money raised for their construction, so that to that extent we may really say that the South is now building about 30 furnaces.

That feature of this table which will, however, attract the most attention relates to the annual capacity of the furnaces completed and now being erected. The capacity of the 582 completed furnaces in November, 1887, as shown by the directory, was 10,990,993 net tons; the table herewith printed shows the capacity of the 575 completed furnaces in November, 1889, to be 13,168,233 net tons, an increase of 2,177,240 net tons, or 1,943,964 gross tons, in two years. "Of course," says the Iron & Steel Association, "as we have often explained, it is never possible in actual production to come at all near to our aggregate capacity; but the increase in capacity in the last two years has been very large, and when considered in connection with the estimated capacity of the furnaces now building it is very significant of our ability to meet any demand which the country may make upon our blast-furnace owners for pig iron of any quality, spiegeleisen and ferro-manganese excepted."

MR. DEPAUW, of New Albany, Ind., who is building very extensive steel works, says that his company proposes to manufacture by a new process, by which they can make steel direct from the ore. "The process," says Mr. Depauw, "was the invention of Charles Adams, of Pittsburgh, and he claims for his invention that it lessens the cost, but it does not differ materially from other processes now in use. The reduction is accomplished by gas, which is passed directly through an upright column to the ore, mixed with some carbonaceous material. Then the process is directly from the reducing furnace to the open hearth, and from that on the operation is similar to the ordi-

nary methods. This process has been tried and proved very satisfactory in an experimental way, but it has never been attempted on a commercial scale. The saving in the cost is effected in the production of the stock for the open hearth process, as the necessity of a blast furnace is obviated, and it is not necessary to put the ore into what is known as the pig-iron condition before it is made into steel."

#### THE St. Louis Age of Steel says:

Perhaps the best way to locate the new town or city of Middlesborough, Ky., at the present time is to say it is near Cumberland Gap. Within the next few years we expect to be able to say that Cumberland Gap is one of the most beautiful suburbs of the flourishing iron and steel manufacturing city of Middlesborough. The site of the new city is not a matter of chance. It was foreordained by reason of its very surroundings to become a great manufacturing center. It would be a difficult matter, indeed, to bring together in the same space a greater number of natural advantages than are to be found in the immediate vicinity of Middlesborough. There is an abundance of coking coals, iron ores, limestone and timber. The people who have this enterprise in hand are not "boomers," but practical men, many of them ironmasters in Great Britain, who, after looking over the entire field, determined upon this location as in all respects the most desirable and advantageous. The tunneling of Cumberland Gap, the building of a railroad from Knoxville, the erection of a large hotel, the digging of a canal through the town at a cost of \$100,000, are only a few of the projects completed by the American Association, Limited, and the Middlesborough Town Co. The Louisville & Nashville Railway completed its branch to the north portal of the Cumberland Gap tunnel some weeks ago, while the Knoxville, Cumberland Gap & Ohio Railroad is running trains to Dillwyn Springs, the southern portal. The Louisville & Nashville track is being pushed along the Virginia side, 60 miles or so, by way of Big Stone Gap, to meet the Norfolk & Western at Norton. Other roads are also being pushed towards Middlesborough from the North with great vigor. It is plain to any one who has given the matter careful investigation that in this great tri-State mountain region there is destined to arise a great manufacturing center with profitable occupations for tens of thousands of men, where picturesque scenery, healthful and agreeable climate combine to offer their attractions.

THE Des Moines (Iowa) Register, in a recent issue, contains a letter highly commendatory of the advantages and enterprise of Anniston, Ala. The letter is written in behalf of a party of Iowans who paid a flying visit to Anniston, but remained long enough to become strongly impressed with the great possibilities of that growing Southern industrial center. Its furnaces, mills and factories, and the limitless resources in the shape of raw materials lying at its very doors, struck the Iowans most forcibly. The go-ahead spirit, too, of the people took the Western gentlemen by surprise, and the latter are almost as confident of Anniston's future as the Annistonians themselves. Seeing is believing, and if the population of the North could take a holiday and see what the South is doing and offers, the former section would be considerably depopulated.

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## "An American Prospectus"

### MAJOR WEST TOUCHES UP THE MAKERS OF PROSPECTUS LITERATURE.

#### The Cres Tributary to Big Stone Gap.

Important Ore Discoveries at Cumberland Gap.

HEADQUARTERS  
MANUFACTURERS' RECORD'S  
EXPLORING EXPEDITION.  
BIG STONE GAP, VA.,  
November 8, 1889.

Having, with the cheerful concurrence of the audience, bitten off the preceding lecture at a convenient point, we seize the thread of the discourse again and raise hob with it. The latest paper was rather heavy with figures, a matter which could not be helped; but it is not always necessary to discuss the dry data of the laboratory. Indeed, camped out within the shadow of these grand mountains, and listening to the noisy plashing of the sweet-watered Powell river, it is difficult for the average man to restrain and control his feelings enough to be able to think or write figures at all. Yet when I gaze upon these noble, mist-covered heights of a morning and feel the sublimity of their presence, I have to sigh a bitter sigh of regret that I have drawn so largely on a modest stock of adjectives and superlatives and things, in connection with Cumberland and Big Creek Gaps, as to have little left for Big Stone, and nothing at all for Pound Gap, when we get to it. Henceforth I am afraid that I shall be compelled to stick to the clear, concise and instructive but hardly intoxicating style of the Patent Office Reports; in which case readers will have no excuse to accuse me of levity.

To prove that levity is impossible to one with such a serious mission, let us begin to find fault and criticise something or somebody. Your really reliable and wise people always do that, and, I may be forgiven for remarking, with less reason than is furnished by a subject, into the realms of which it will do no harm to make a small excursion.

If there be anything calculated to make a man proud of his fellow-man, or to give him a lively sense of the goodness, unselfishness, fraternity, and self-abnegation of humanity, that interesting thing is a genuine every-day American prospectus. Other literature may be entertaining, or elevating and full of soulfulness, but it is to be doubted if the trained mind can absorb the thoughts and statements of an average prospectus without it being borne in upon the reader that the writing is "inspired." Among other things because, like other inspired writers, the authors of prospectuses always claim the earth and the fulness thereof for their very own. This is not only excusable but proper; since, if we would see our horn exalted in this world we must blow it, for nobody else will do it for us. In performing this laudable disturbance, however, it is not perhaps equally necessary to make invidious comparisons, or to point the moral of our own superiority, or adorn the tail of our projective kite by remarks to the disparagement of our neighbors. Yet, in all seriousness, the temptation to do this seems to be irresistible to people who start out to set forth the attractiveness of any given place or district. Not content with making assertions and claims, which if they stand

the test of cold, practical expert examination, are sufficient to compel prosperity and all the facilities and conveniences requisite to prosperity, the strong tendency is to paint the lily with a little fling or two at other places and localities, which whatsoever the failings on their part, have somehow managed to "get there" successfully.

The foregoing remarks are offered as a result of the perusal of 1,728 prospectuses of various and sundry Southern enterprises, nearly all of which, while congratulating Providence that the particular interest represented has everything there is worth talking about in the country, wind up with a *delenda carthago* hurled at Birmingham, and sometimes Chattanooga; places which, as everybody knows, from the ordinary prospectus point of view, never had much if any legitimate basis, and have gone on until they have become great and typical American industrial centers, in impious defiance of all conditions and prospectuses. The prospectus of the Big Stone Gap Improvement Co. is an excellent work of its kind. It is full of condensed data and information concerning the resources, advantages and so on, of the company's lands and of the district, and its matter is all the more calculated to carry conviction, because it gives high and well known authorities for what it states and claims. It is nearly free from the sort of thing I have been discussing, but not quite, and as the project it supports has been given a full meed of praise in these reports, it will do no harm to use a small sentence from the book to illustrate the point in hand: "The wonderful growth of Birmingham and Chattanooga, neither of which possess the advantages of Big Stone Gap, show the potent effect of having at hand the materials for the production and manufacture of even low grade iron." (Italics my own).

That means that while Birmingham and Chattanooga have a little coal, iron and limestone, sufficient to make some inferior iron, Big Stone Gap, as elsewhere claimed in the pamphlet, is the one future great place on the continent where the fine coking coals of the Cumberland Mountain region are to smelt the Bessemer ores of the vicinity and likewise the 60 per cent. magnetic ores of the Cranberry region some distance away. All this may come true, and everybody interested in Southern development would be heartily glad to see it; but it does strike one that the voice of the chancicleer should be restrained until there are such accomplished facts to crow over. Birmingham, for instance, is a demonstration. We all know that as far as the manufacture of foundry and mill irons is concerned, rivalry is out of the question. Birmingham does not make Bessemer steel, because her ores are not Bessemer—that is conceded. It is also admitted that most of the steel now used in Continental Europe is made from ores like the Birmingham ores, by the Basic process. Should the Bessemer Association (Limited) let go its grip on the basic patents in this country, it is the opinion of many eminent authorities that Birmingham could make Basic steel in easy competition with all the Bessemer plants in the Union. But neither Birmingham nor Chattanooga have done this yet, any more than Big Stone Gap has made Bessemer pig with coke of her own production. Things like the sentence quoted from the prospectus are calculated to bring on reprisals. The Cranberry ore field, much as is hoped for it, is yet not quite as clear a demonstration as one could wish, and the ores around Big Stone Gap that are said to come within the Bessemer limit have not been exploited to a point making that claim perhaps entirely proven. All this is written in kindness, in the hope that the idea may float around and catch somebody. There are hundreds of localities in the South, which, like Big Stone, present all the resources, advantages

and facilities necessary to extended industrial development. That being the fact the friends of such places will not be advantaged by any appearance of detracting from others, especially where the others have made their lucky hit and raked in their pile: It is a no end—pleasant sight to see brethren dwell together in peace and unity.

Having thus improved the occasion, it is time to change the subject and to consider the iron ore resources of the Big Stone Gap region. In the papers of the Exploration referring to Cumberland and Big Creek Gaps, a good deal has been written concerning the Clinton (red fossiliferous) ores of the Powell and Poor Valleys. The Poor Valley lead of these ores is one of the principal iron resources of the Big Stone development. In the report of Messrs. McCreath and d'Invilliers will be found the following:

These are the ores mined in New York, Central Pennsylvania and in the Chattanooga and Birmingham districts of Tennessee and Alabama, where they attain an abnormal development and are the chief source of supply for the many coke furnaces of these two States. Nowhere in Virginia do these ore beds reach anything like the development of those in the two more Southern States, although attention has been called for many years to their existence in a workable state, great abundance, and with average purity through the Poor Valley region of Southwest Virginia. As the general geological map will show, the rocks containing those "fossil ores" do not outcrop on the Kentucky side of the Cumberland plateau; or if they do, they are exposed only to a very limited extent along the north base of Pine mountain, by reason of a fault, and are not known to contain any workable deposits of iron ore.

In Virginia these rocks outcrop all along the Poor Valley ridge continuously from beyond Cumberland Gap in Tennessee east for sixty miles to Big Stone Gap in Wise county, where they fold around the Powell Valley anticlinal and return again on the south side of the Powell river into Tennessee.

In that part of the Valley lying between Big Creek and Cumberland Gaps the Clinton ore occupy three and possibly four distinct beds, separated by considerable intervals. For a matter of fourteen to seventeen miles east of Big Creek the principal bed appears to be approximately six feet thick. Nearer Cumberland Gap the separation between the beds are less wide, and the six feet Big Creek bed is narrowed to five, four and a half and even four feet. At least that was the record as far as it had been made up when we were there. East of Cumberland Gap again, in Poor Valley, and before the Big Stone Gap district proper is reached, McCreath and d'Invilliers report indicates some thickening of the principal or upper beds: Referring to the Clinton deposits in this intermediate country the report observes: "They are here quite regularly bedded, which is also the case for some miles east of Cumberland Gap; they are quite accessible at many points and have a large aggregate acreage. But they are everywhere to be classed as thin beds, often too thin to warrant mining; they show a variable section in nearly every mile of their outcrop, and as the analyses will show, the good ore is largely confined to one bed, the upper bed of the three. \* \* The best ore is found in the ridge, where it has been exposed to the leaching process and where it can be most cheaply mined."

The following sections and analyses reported by McCreath, will afford an idea of the conditions of the fossil ore resources between the Gaps. The first example is drawn from an opening at water level on a branch about eight miles southwest. The ore is of the hard fossil variety.

SECTION.	
Slate roof.	
Ore, calcareous, upper branch.	3 ft. 0 in.
Greenish slate parting.	0 " 5 "
Ore, lower bench.	2 " 0 "
ANALYSIS OF ORE FROM BOTH BENCHES.	
Metallic iron	46.000
Phosphorus	.447
Lime as carbonate	25.640
Magnesia as carbonate	1.498
Silica	9.970
Phosphorus in 100 parts of iron	1.771

An opening near by the foregoing and

about 30 feet above drainage, probably the same bed gave:

SECTION UPPER OPENING.	
Ore	2 feet 3 1/2 inches.
Slate parting	0 " 5 "
Ore	0 " 7 "
Slate	0 " 1 to 2 "
Ore	1 " 2 "
4 feet 8 inches.	
Metallic iron	
Phosphorus	46.000
Silica	.447
Phosphorus in 100 parts of iron	1.771

The analysis of ore from the three benches, including the small parting dividing the two lower benches gives:

Metallic iron	46.000
Phosphorus	.447
Silica	19.199
Phosphorus in 100 parts of iron	.970

A considerable number of analyses might be given, illustrating the inter-gap section of the fields east and west, but they appear unnecessary here. As McCreath and d'Invilliers state, the iron ore is thinly, and quite variably bedded, and in many places the intercalations of shale and slate will render practical development difficult if possible. Quite generally the quality is good enough, the percentage of metallic iron running from 38 to 50. Within the localities directly tributary to Big Stone Gap the conditions seem to be somewhat improved. On the Poor Valley side there is an outcrop of Clinton ore approximating four feet in thickness, with some, apparently, insignificant partings in places. The dip of this ore, following the profile of the mountain, and near the surface, gives promise of the possibility of stripping to some extent, and, elsewhere it is thought that it can be economically mined from the Valley upward. Several openings have been made on this horizon, resulting in an appearance of considerable persistency and local homogeneity, but the exploitation is not far enough advanced to be conclusive. An analysis by McCreath of a sample taken from this outcrop given, according to the Big Stone Gap Improvement Co.:

Metallic iron	56.600
Sulphur	0.018
Phosphorus	0.116
Insoluble residue	18.149

Should the promise of these near-by beds be redeemed, they must constitute an important addition to the iron resources of the Gap. In Wild Cat Valley an opening (also reported on by McCreath) shows a good quality of red fossil ore, the bed being three feet three inches thick, but displaying two shale and one knife edge slate parting. The analysis gives:

Metallic iron	47.650
Phosphorus	.197
Silica	20.870
Phosphorus in 100 parts of iron	.413

Of the Oriskany ores of the Big Stone Gap district and of the Valley down to Cumberland Gap, it is quite impossible to write in a way to satisfy the hopes, perhaps beliefs, of those interested, and at the same time stick to the text of absolute demonstrations. Along the line of the Ohio & South Atlantic construction approaching Interment there are Oriskany outcrops twelve feet or more in thickness. Outcrop openings are being made, but of course, do not settle the question as to whether or not the deposit extends under cover into the mountain or not; or, if it do, how far? Doubtless the proprietors of the ore will hasten such work as would prove conclusive, and it should be undertaken vigorously and without delay. It does not require argument to prove that the Oriskany is a horizon with a good many presumptions against it. It is doubtless true that, exceptionally, it is the source of large deposits. That from which the Low Moor furnace draws its supply is frequently referred to, and indications at Cumberland Gap are reported to be far better than when we were on the ground eight weeks or more ago. At that point it is stated that a mass of this ore 27 feet thick (vertically) was encountered at something like 380 feet from the mouth of the test opening, other bodies having been gone through, of 16 feet on the outcrop, 5 feet and 12 feet—vertical width not given. It may be that the land of the Gaps is to prove a rich variation from the customary treacherousness and alluring but false ap-



pearance of Oriskany deposits, but it must take thorough and convincing local demonstration anywhere and everywhere to show it. So it is hardly worth while to build castles on any Oriskany ore not completely exposed as to its practical extent and character. It may be a giant resource, or it may be a very secondary or minor one. But it presents a problem that ought to be solved in the interest of the development of the Cumberland Mountain region. The American Association at Cumberland Gap deserves great credit for the enterprise it has shown in following the bed right into the heart of the mountain. It should appear to the advantage of others to take the same course.

In case the net results of the Oriskany happen to be as good as our Big Stone friends seem to expect, then there will be ample supply of ore for the foundation of a considerable local iron industry. An analysis reported from McCreath, will indicate the quality of sample drawn from these beds. They are presumably from the out-crop:

Metallic iron.....	52.56
Sulphur.....	0.037
Phosphorus.....	0.051
Insoluble residue..	7.840

Professor Stevenson is quoted as reporting a bed of red ore near the Gap to show 4 feet 8 inches hard and 2 feet 6 inches soft ore. Another bed three miles from the Gap—probably one of the series visited—is reported to show from 47.65 to 49.43 metallic iron. I do not give the full analysis as I do not learn the name of the analyst on whose authority it is given.

The measure of importance which the Cranberry and other North Carolina and Tennessee ores will have in connection with the industrial evolution of Big Stone Gap will in some degree depend upon the results of a thorough exploitation of the Oriskany ores. But in any case, it is one of the leading ideas of the Big Stone people that their Gap is the place specially provided by Providence and nature for the purpose of turning magnetic Southern ores into Bessemer pigs, and later into Bessemer ingots, needles, locomotives, corkscrews, monkey-wrenches, and—money. It is an honorable ambition, and its realization would be a credit to the projectors, while it would reflect glory over Southern industry. To attempt to judge of its feasibility without having all the facts before us would be futile. For that reason it will be necessary to drop this part of the subject until the MANUFACTURERS' RECORD staff has had a chance to study the Cranberry and adjacent fields, when it will be recurred to with some remarks at that time upon any connection between these ores and those coking coals that may be suggested in the course of investigation.

GOLDSMITH BERNARD WEST.

### Silk Culture In the South.

What promises to demonstrate that silk culture can be profitably followed in the South is the attempt now making at Loweryvale, Ala., by what is termed the S. R. & R. M. Lowery Industrial, Academy, Silk Culture Industry & Manufacturing Co., to show that the silk-worm can be made a potent factor in the prosperity of the future. The Lowerys are colored people who, for the past ten years, have devoted much attention to the management of the silk-worm. They are located at Loweryvale, near Birmingham, Ala. They invite the aid of forty industrious colored families to settle on one-eighth-acre lots at Loweryvale and engage in silk culture, the community to work upon the co-operative plan. Those wishing full information upon the Loweryvale experiment should procure a copy of the circular issued by its promoters. A large edition has been issued, and friends of the colored people might be induced to purchase it entire.

## MIDDLESBOROUGH.

### A Town Founded Upon the Rock of Industry

That Must Inevitably Become a Great and Flourishing Center.

[Spec. correspond'ce MANUFACTURERS' RECORD.]  
MIDDLESBOROUGH, KY., Nov. 6, 1889.

There is so much to see and observe in this new and marvelous town that one, upon his first visit, cannot find or make time to put the results of his seeing and observing into words.

Middlesborough is, as yet, in the raw state, but at the present rate of progress it will be a thriving, busy city within a twelvemonth. Houses and other buildings are being started at the rate of thirty a day, so Mr. Arthur, the manager and projector of the place, tells me. New streets and avenues are being laid out and cut through, canals are being dug to bring the creek into subjection, swampy and hollow places are being filled in, whole hills have been condemned and contracts made to remove them; in short, nothing has been left undone which appears to be for the well-being of Middlesborough.

In talking with men on the trains and elsewhere I heard a great deal about the "boom" at Middlesborough, and in anticipation of seeing the place, I expected to see a regular "boom town" such as I saw in the West and in California three years ago. The only semblance this town bears to a boom town, however, now that I have arrived here and had an opportunity to see it and compare it to a genuine "boom" town, is in the architecture of some of its buildings. Outside of this, Middlesborough is in no way a boom town. A boom town is founded upon the sands, the prey to storms and winds, as we read of old. This town bears every indication of having been founded upon a rock, and when once fairly upon its feet and in trim to compete in the markets of the world in iron, steel and other products, it will be found sufficiently able to withstand the winds and storms of adversity and dull times.

Nature has done everything for this town, not only from an artistic point of view, but also from a practical point of view. Everything is at hand. I cannot better explain this than by comparing this town to a New York city residence, and many other towns to a rambling country mansion. In the New York flat every possible convenience for housekeeping is at hand. The housewife has no going up and down stairs, no running around the yard, and no carrying of water and coal. Everything is arranged with a view to economy of energy, time, space and money. In the country mansion there is economy in nothing, and the good housewife wears herself out in her endeavors to keep up with the progress of the world.

Middlesborough has the best of iron ores right at hand on one mountain side; on another mountain side is the best of coal for an abundance of coke; on still another mountain side is limestone; wood, stone, brick-making clay and other building materials are in abundance; fire-clay is in unlimited supply; in short, everything requisite to found a great iron-producing city is here. Middlesborough can manufacture iron and steel and not call upon the world outside of its surrounding mountain sides for anything. Why, then, can she not compete with the world in iron-making?

Energy, not materials, makes any city or town. Middlesborough has the materials. But has she the energy? The promoters of this place have built a fine railroad to connect their town with the world; they have tunneled the mountain at enormous cost; they have developed iron and coal properties, laid out a great town, and

in other ways carried on a great work that has cost them millions of dollars. They have not only laid good foundations, but they have laid them in such a way that they can add more and more stories to the superstructure. They are men who know a good thing when they see it, and in this investment they have found an opportunity of a lifetime.

Several men said to me, "I never heard of this town until you told us about it in the MANUFACTURERS' RECORD, and I hold you responsible for my being here." Said one: "You have talked so much about this place in your paper that I have come over here to establish a bank."

The MANUFACTURERS' RECORD need not tremble and fear that these men will fall back upon its hands. If they display half the energy and thrift that they have in the example of the management of the town, they cannot fail to succeed.

I have seen a great many towns North, South and West, but I never saw one that started out with better promise and on surer foundations than Middlesborough. It has every advantage, and no expense is spared to develop these advantages. The man who buys town lots here will not regret his investment, and the man who establishes a factory here, especially in the line of developing the metals, wood, clays, ochrous slates and other natural raw materials, will in the end be happier even over the results than will the investor.

H. L. ALDRICH.

### Greensboro, N. C.

A few hours spent in this beautiful and prosperous place a day or two since, and our own observations enlightened by the kind interest of friends, suggest the sharing with our readers some of the pleasure and interest we enjoyed. And there is a source of real enjoyment in the freshness, brightness, beauty and animation that pervades a town, which, though quite old, seems to have drawn vitality from the fountain of perpetual youth; and except from the size of the shade trees and the maturity of shrubbery and the richly adorned flower gardens, bears the impress of a new town called into being by railroad impulse or influence. This freshness is largely due to the light clean soil which reflects back in softened tone the brilliancy of the sunlight; and the purity and dryness of the air preserves the paint with which every house is adorned in all its lively cheerfulness.

Greensboro is not a new town, relatively speaking, by any means, though post revolutionary in its selection as the county seat. Guilford county was created in 1770, and Martinsville, about six miles to the northeast, the first seat of justice. Near this place was fought the battle of Guilford. How long after the war it was when the removal of the courthouse was made we do not know; but it was done before the end of the 18th century, and the new town was named in honor of Gen. Nathaniel Greene, made doubly honorable by his distinguished prominence as the commander-in-chief of the Southern war, and as commander at the battle of Guilford.

The town must have grown slowly, for at the beginning of the late civil war it could not have numbered more than two thousand in population. But it was well known long before that as an educational center, its schools, male and female, being of high repute. It was known to the traveler as one of those few and far between places on the stage route—the only line of public travel—between Raleigh and Asheville, Hillsboro, Greensboro, Lexington, Salisbury, Morganton, the only towns in existence along that long distance. In 1856 the North Carolina Railroad, passing by Greensboro, was opened in its whole length from Goldsboro to Charlotte. It was for years the only road, and while making it more

easily accessible, had little good influence upon its prosperity; in truth, it lost much of its trade from the counties back of it, which was diverted to High Point, a new creation of the railroad.

It has now become an important railroad center. The extension of the Piedmont Road to Danville as a military necessity during the war led subsequently to its absorption by the Richmond & Danville Railroad Company, and the lease of that company of the North Carolina Road, and its consolidation with the great through system made Greensboro a very important point on that great line. The road built to Winston afterwards came under the control of the same company, and, instrumental in speedily making an active and populous manufacturing city out of the courthouse village Winston, acted forcibly upon the fortunes of Greensboro. Within the past two or three years have been added to its railroads the very valuable line of the Cape Fear & Yadkin Valley Road, with its south and northwest extensions, and all converging in the very center of the town, give vivid evidence of the importance to which Greensboro has attained. Of course we can only give a few details.

The impression is an agreeable and somewhat novel one. The passenger leaves his coach to find himself at once in the midst of a finished architectural effect rare in the vicinity of railroad depots. Elm street opens north and south, a fine broad avenue, once lined with fine elms, recently cut away to bring into full view the long lines of three-story brick stores, the architecturally striking McAdoo and Benbow hotels, the Federal and county courthouses and other fine public and private buildings, making north Elm street equal in beauty to any in the State. The stores are unusually elegant and capacious, surpassed nowhere, even by large cities, and this street from the depot to the courthouse has been solidly and smoothly laid with the Belgian pavement, while it is flanked with very broad sidewalks laid with bricks brought from Fayetteville, said to be the best known for such purpose. These streets, as also the public and private houses, are lighted with the arc electric light and also with gas. A stand-pipe is erected near the depot to supply the city with water for all uses. In case of fires dependence is had in this water supply in connection with a steam fire engine, a substantial house for which, of brick, has just been completed. We believe that the fire department also includes one or more chemical engines.

An important business, somewhat new, is done in tobacco, about two and a-half millions of dollars of leaf being annually sold. There are three sales warehouses and three plug factories, all large brick buildings, and Bevel & Scott are just completing a very large four-story building for a leaf factory. There are many other manufacturing establishments in the place, including a stove factory, three foundries, four or five sash and blind and wood-dressing establishments, a spoke and handle factory, etc.

The educational wants are well supplied. The Methodist Female College, with fine buildings and ample grounds, is in flourishing condition. The graded schools for whites and colored are admirably successful, and there is a negro college partly sustained by Northern aid which is doing well.

There are two leading hotels here, the Benhow and the McAdoo, both well kept. Of the former we can speak of personal knowledge. One admirable feature it possesses; all its rich, sweet butter and its abundant supplies of milk and cream comes from Mr. Benhow's dairy farm near the city, and also all his supplies of meat, beef, mutton and pork, his poultry, his fruits and his vegetables. Of this establishment we wish to speak another time, as also of another industry peculiar to the vicinity of Greensboro—the nursery business. At present we must defer it.

Greensboro has a population of about 7,000, and is evidently increasing.—The Daily Citizen.



## IN THE "LAND OF THE SKY."

### A New Town in Western North Carolina.

An Ideal Place Where "Life is Worth the Living" Even to a Dyspeptic.

[Spec. correspondance MANUFACTURERS' RECORD.]

CHARLOTTE, N. C., Oct. 29, 1889.

Some two or three weeks ago, while out upon a horseback exploring expedition of my own in the heart of the mountains of Western North Carolina, I came upon what seemed to me to be one of the most happily conceived enterprises of the day. It was the active work of building a new town, with many special features to make it different from most other new towns. I thought at the time of writing a description of it, but business and other matters of moment have prevented.

The new town of Linville has but recently attracted attention at the hands of the State press. Why? Because, I presume, the gentlemen who are managing the enterprise were not ready to inform the public of what they were doing or what they intended to do in the future. Silently, but none the less surely, have they been securing tract after tract of land, aggregating sufficient for any growth they can with reason calculate upon. This body of land lies in the heart of the most beautiful region of the country, and is likely to become a populous center.

Two or three years ago Mr. S. T. Kelsey, who, by the way, is a gentleman of large experience in building towns, having laid out Highlands, in this State, as well as several cities in Kansas, and who was for years forester of the Atchison, Topeka & Santa Fe Railroad, studying sections for their eligibility—this gentleman, in traversing the mountains to examine into the feasibility of running a railroad through their fastnesses, came to this spot. To him it seemed an elysium, for his practical eye at once took in its attractions. He at once went to moneyed friends and informed them of his opinions and plans. A company was formed and money paid in to commence extensive operations.

Saw mills were put in; a force of over one hundred men was employed in removing trees and stumps from the roadways of the tract which had been surveyed for the town; extensive parks were reserved and roads laid out to them; teams and scrapers were employed in grading; a good hotel was built to accommodate the first comers, and a livery stable commenced; a number of cottages were going up, with stores enough to supply the trade, and the work of evolution—changing an ancient forest into village, town, city, which will, in time, be famous—is going rapidly forward.

A driveway five miles in length has already been completed, winding around through the mountain at a gentle grade, so that a team can easily trot either up or down. This will probably be completed to Blowing Rock, fourteen miles distant, the coming year. This drive is undoubtedly as lovely a one as can be found in the country. Starting from the valley of the Linville river, which is here about 3,800 feet altitude, the road ascends gently along the side of the mountains, past deep ravines and under towering peaks and overhanging cliffs, while here and there a vista of nature's grandeur is opened up through the leafy branches of the trees. Along the lower slope of the Grandfather, the king of mountains, which raises its hoary head aloft 6,000 feet above the sea, bidding defiance to time and the elements, the acknowledged oldest mountain in America, the splendid roadway leads us, but here at its foot we must stop, for beyond all is wild forest, and nothing there of the road but the stakes of the surveyor with his cabalistic marks, but between

us and these stakes is a large gang of men who are fast making the civilized take the place of the uncivilized and the smoothly graded road the place of the rough rocks of nature. Stumps and trees are being removed, rocks blasted, ravines filled up and streams bridged. Thousands of dollars have already been spent upon this road, and thousands more will be put in its extension.

The Grandfather and Grandmother mountains are both owned by the company, which, by the way, is known as the Linville Improvement Co., with Mr. Hugh MacRae, of Wilmington, N. C., president and treasurer; Mr. J. C. Mellichamp, of Charleston, S. C., secretary; Mr. S. T. Kelsey, general manager, while the stock is held in Philadelphia, Boston, New York, North and South Carolina and among Mr. Kelsey's old friends in Kansas, who, knowing of his excellent success in the past, were anxious to take an interest in this, his last, though not by any means least, enterprise.

The town proper is laid out in the Linville valley, and has most excellent drainage, while the water supply, rising as it does up on the Grandfather mountain far above any point of what will even in the future be human habitation, is thus secured from any possible contamination, and the supply is large enough to furnish all necessary quantity for future use.

The valley at this point is wide and level, and seems to have been designed by nature for the very purpose to which the company has dedicated it. It is at a point where railroads passing through Mitchell county must necessarily make their junctions, and two or three are now in contemplation, though at present Cranberry is the nearest railroad point, ten miles distant; Lenoir is thirty-five, and Morganton and Hickory each in the neighborhood of forty.

There are now three saw mills at work, a planing mill and furniture shop, and no lumber sawed is to go out of the town of Linville. The company will not sell a foot that is not to be used in buildings in Linville, but for this purpose they will sell it at a very low rate, making it possible to build a home with far less money than at other points.

The company is spending thousands of dollars every month upon improvements, and all the property it has thus far attempted to sell is what has been called for by those who have heard of the enterprise through their friends. I believe now, however, the work is so far advanced that Mr. MacRae has made arrangements for the issue of an illustrated pamphlet which will be sent on application.

Prices have been placed at a reasonable figure, commensurate with the amount of work being done and the cash invested, but these low prices will not be held long; they will undoubtedly be advanced at an early day. The policy of the company is to advance prices as the improvements are made, and thus those purchasing now will have the advantage of that enhancement.

Looking off from some of the heights, range after range of mountains can be seen in the distance, fading away into misty uncertainty among the clouds, while before you and beneath your feet is the lovely valley of the Linville, with its pure sparkling waters winding their sinuous way through the meadow, among the trees, over rocks, and through deep and silent glades, anon to fall in a beautiful cascade, beating itself into a misty rainbow upon the rocks below.

This section of the country is a paradise for the angler; the artist finds here subjects worthy of his greatest skill, while the poet's soul is stirred with a sense of sublimity, and even the most dyspeptic misanthrope must here find some charm to raise the false veil which he has drawn over his perceptions.

When I visited there the first frosts of the autumn had thrown their beautiful scenic tints upon the virgin forests of Linville and all color:

"From the lightest tint of yellow  
To darkest shade of green;  
From soft and golden beauty  
To sparkling silver sheen,

Had new crowned the oaks, the maples,  
And the gently sighing pines,  
While it touched, with softest color,  
Close clinging ivy vines."

It seems to me that no more beautiful spot could have been selected, and accompanied by the beauty is the pure, bracing mountain air, which gives strength and vigor to the system and brings the roses back to the cheeks made pallid by living in the vitiated air of cities or low sections of country. It is hard, indeed, to imagine disease following one from its haunts to this section, where the air is so surcharged with life-giving oxygen. This is to be an ideal town and the work of building it is being planned with great forethought and carried out with much energy.

JOHN P. COFFIN.

### George Westinghouse on Fuel Gas.

[George Westinghouse, Jr., in N.Y. Evening Sun.]

Your editorial notice concerning the fuel gas problem, in which you give me credit for a very valuable discovery, prompts me to ask for some of your valuable space.

A company with which I am connected, the Fuel Gas & Electric Engineering Co., Limited, has devoted about three years to the heating gas problem. The investigations have been carried sufficiently far to show that a new process for the manufacture of gas is not needed to bring its use for heating purposes within the reach of the many. Instead of the energies of the company referred to having been devoted wholly to processes for the manufacture of gas, the greatest attention has been given to the development of appliances for the use of gas, and already many devices have been perfected having such efficiency that their use in connection with ordinary illuminating gas will, when taking into consideration the saving of labor, dust and dirt, prove economical as compared with coal.

In the near future, when the illuminating gas companies make it a business to introduce economical devices for the burning of gas, it may be expected that the citizens of New York and other large cities will use gas very largely for cooking and other domestic purposes.

There is a simple device for the heating of water that ought to be in every household. By lighting a gas jet and turning on the water at the same time, water is boiled in about fifty seconds, and will run continuously at the boiling point at the rate of seventy gallons, with a consumption of about fifty cubic feet of gas per hour. There are roasting devices wherein the radiant heat of the gas is reflected upon the meats to be roasted, and the result is a saving of from 10 to 15 per cent. in the weight of the meat, which is lost by the present method.

Heated air prefers the top of the room, and thus leads to the consumption of a large amount of fuel in order to get a small amount of heated air upon the floor, where it is most needed. A European invention is so designed and arranged that about 50 per cent. of the heat is reflected upon the floor, so that at a distance of 10 to 20 feet from one of these contrivances set in an ordinary fireplace, the heat can be readily noticed upon the floor. Not only is the heat reflected upon the floor, but the heat in the products of combustion is utilized in warming the air in the room, which it puts in circulation. So economical is this stove that about 35 per cent. of the entire heat units contained in gas are made available, as against 10 per cent.

from coal grate fires. In all bed-rooms, and for heating in moderately cool weather, stoves of this character, from a sanitary point of view, would be worth their weight in gold, for in one minute after lighting the gas jets the reflected heat may be felt upon the floor.

In Europe, where a very careful investigation has been made in the interest of the company referred to, innumerable devices were found of more or less merit, and which were being largely introduced, because of the economical results, among a people who of necessity regard expenditures much more closely than the people of this country. It is known to a fraction of a foot how many cubic feet of gas are needed to broil a steak, to cook a bunch of asparagus, to boil a cabbage and to roast a pound of beef.

So soon as the people of New York and other large cities understand what has been done and are able to secure the necessary appliances, they will believe that the gas age has really come.

The present cost of manufactured gas is largely due to great percentage of leakage, and the comparatively small quantity of gas transported for an average of twenty hours per day. When a large quantity of gas is used for heating during all hours there will be no special need for a better process of manufacturing gas than the present, for the greatly increased consumption will lessen the price, and that, in connection with the economical appliances, will bring what is truly a great luxury within the reach of all classes. However, the importance of the manufacture of a cheap fuel gas is more fully recognized now than ever before, and there are hundreds of gas engineers to-day working on the problem, and there is every reason to expect that most excellent results will follow such persistent labors. The work begun three years ago on this subject is still being followed by people in my interests, though it is made of secondary importance at the present time, the first importance being given to the development of appliances for burning gas economically.

THE MANUFACTURERS' RECORD has frequently commented upon the very remarkable industrial growth of Florence, Ala., and the wide diversity of its manufacturing interests. To the many enterprises already in operation and under construction there is now to be added a \$500,000 cotton mill, which will probably be much the largest in the State. The arrangements for this mill have been fully completed, and contracts for the machinery and for the construction of the building are to be let at once. In addition to this great enterprise many others are being worked up, and a number are already definitely secured, though not yet made public. Philadelphia and New England capitalists have made heavy investments in the stock of the Florence Cotton & Iron Co. and in the land and stock of the Railroad & Improvement Co., and will make other liberal investments in new enterprises to be established there. Florence has apparently captured every investigator who has gone there to study its resources, and hence the very remarkable growth of the place. The history of this progressive town aptly illustrates the possibilities of the South, and the MANUFACTURERS' RECORD commends Florence to other Southern towns as an example of what can be done by united, persistent effort when backed by natural advantages.

# LOW CAPITALIZATION ON LARGE VALUES!

PECULIAR IN THIS RESPECT among all the great enterprises of the South is the

## East Tennessee Land Company

CLINTON B. FISK, New York,  
PRESIDENT.

A. W. WAGNALLS, New York,  
TREASURER.

A. A. HOPKINS, New York,  
SECRETARY.

FREDERICK GATES, Tennessee,  
MANAGER.

### Capital Only \$3,000,000, Covering 300,000 Acres

Of Land in Six Counties of East Tennessee, Mostly Contiguous, with over

<b>250,000</b> Acres of Coal, Domestic and Coking; more than	<b>40,000,000</b> Tons of Bessemer Steel Ore, the best known;
<b>70,000,000</b> Tons of Rich, Red Hematite Iron Ore; at least	<b>600,000,000</b> Feet of White Woods, Oak, Pine, Chestnut and other timber.

**And Three Iron Mines in Profitable Operation.**

This company, after months of patient prospecting and survey and the acquirement of the richest aggregation of Coal, Iron, Town and Farm Properties owned by any one corporation, has begun the establishment of

### ✻ HARRIMAN, ✻

A Valley City, the Industrial Center of all this vast area, with two great Trunk Lines of Railway running through it now, three other railroads centering toward it and certain to reach it soon, and others projected, radiating from it; THE NATURAL FOCUS of many hundred square miles of territory abounding in mineral resources and rapidly developing; with iron and coal and limestone all about it, and fairly within the city limits; with a navigable river flowing through it and bringing an abundant supply of purest water; occupying the most strategic position for manufacture and transportation, hitherto undeveloped in the entire South; and of

### ✻ DEERMONT, ✻

An Uplands Town, on the Cumberland Plateau, 2,000 feet above sea level, in a superb climate with a magnificent outlook, surrounded by an AGRICULTURAL REGION of unsurpassed beauty and opportunities, and sure to be the favorite health resort of all the South, where malaria is unknown and yellow fever impossible; where the days are

radiant and the nights forever cool, and under BROAD PLANS OF COLONIZATION, and with a liberal policy of improvement, will soon open up both these to public approval. Meanwhile half a million dollars of the unsubscribed stock of the company is offered for sale, at par, in shares of \$50.00, twenty per cent. down, and the balance in monthly payments of ten per cent. This stock is non-assessable, and purchasers assume no liability whatever. It is not of the inflated, balloon order, but BASED ON SOLID VALUE. It is made receivable by the company, at par, in payment for farm lands or city or town lots, with such a discount upon these as will give, until July 1st, 1890,

**Every \$100 of Stock the Purchasing Power of \$133.33 Cash.**

With the ample working capital of the company expended in judicious improvements, with the industries established that are now in contemplation, with the settlement assured and the broad plans of the company made widely known, the property this stock represents will become worth \$6,000,000 inside the first year.

Subscription receipts will be given by the treasurer for all payments, and stock certificates will be issued when shares are paid for in full. Every order for stock must authorize the secretary to subscribe for the same, on behalf of the purchaser, upon the company's books.

Make all drafts, checks, etc., payable to the order of A. W. WAGNALLS, Treasurer, but send these and all communications, to

**A. A. HOPKINS, Secretary,**

96 BROADWAY, NEW YORK.

An extended Prospectus, with ILLUSTRATIONS AND FULL PARTICULARS, mailed free on application to this address.



# SOME SPECIAL CLAIMS

POSSESSED BY

# LIBERTY, VA.

TO THE FAVORABLE CONSIDERATION of all classes of prospectors, whether for homes, for investment of capital, for health, or for business enterprise. With the ensuing scholastic year will be opened the superb building of the Randolph Macon Academy, of which a cut is herewith presented. This institution is built for the thorough culture of boys—mental, moral and physical—is under the efficient management of Prof. W. W. Smith, LL.D., president of the Randolph Macon College at Ashland, Va., and has been constructed regardless of cost, to secure every condition essential to the successful attainment of its objects according to the most approved modern standards. Such another educational institution does not exist in the broad limits of the Southern States. In addition to this two handsome Female Academies, constructed upon the same intelligent, liberal and progressive principles as the Randolph Macon Academy, will be built during the coming year, and, if possible, receive pupils in September, 1890. Besides these, Liberty already possesses

shipping facilities and all the climatic, social, sanitary and pecuniary conditions requisite to the retention of skilled artisans once engaged in their employment. The manufacturers of tobacco, woolen goods, etc., already established here have found the local advantages so great that they have refused every inducement offered them to move to other points.

Every reasonable concession will be made to parties seeking locations for the establishment and operation of manufacturing plants, and upon application to the undersigned specific information will be furnished as to all details, both regarding the natural merits of the location, the character of raw materials within easy access and the terms offered to *bona fide* prospectors for sites.

Few better opportunities have been offered investors in Southern properties than the lands immediately adjacent to Liberty—lands possessing the intrinsic merit of natural fertility and productiveness in addition to close proximity to an embryo city,



RANDOLPH MACON ACADEMY.  
LIBERTY, VA.

the usual quota of public and private schools, for which progressive Southern towns are noted.

These institutions insure an intellectual and moral tone in its society to the residents of Liberty that must give it pre-eminent attractions over mere manufacturing centers to the best class of settlers.

As a special recommendation to investors, Liberty possesses all the advantages of close proximity to the ore beds and coal fields of the famous mineral region of Southwest Virginia, is the county seat of Bedford, itself an unexplored mine of mineral wealth, representing granite, limestone, steatite, kaolin, the hematite and magnetic iron ores, asbestos, mica, graphite, mineral paints, fire-clay, &c.

Manufacturers would find here, within easy access and at low cost, all the raw materials used in their business. Cheap labor in great abundance, cheap fuel, excellent

bleamed with all the elements essential to steady and permanent growth. Some of these lands are already in the hands of improvement companies and have been laid out in beautiful, wide, shady avenues and divided in lots to meet the requirements of those desiring to build or to invest on a modest scale.

Liberty invites the closest scrutiny of its claims and does not require to indulge in extravagance or deception. Its growth is inevitable. With a superb climate, grand and imposing scenery, a surrounding country of great productiveness, invigorating mountain atmosphere, an unlimited supply of the purest free-stone water, unsurpassed healthfulness, good society and the finest schools for both sexes, enterprising and successful manufacturers, close proximity to the markets of the world, cheap labor, cheap lands, excellent shipping facilities; it lacks nothing but more people to make it a model city.

For Information address { J. LAWRENCE CAMPBELL, Secty. Liberty Improvement Co.  
R. KENNA CAMPBELL, Manager Longwood Park, Va.

# 200,000,000 TONS OF BROWN IRON ORE

IN SIGHT AT

## BLUFFTON,

HIGH, HEALTHY AND HONEST.

GOOD PEOPLE AND GOOD WATER.

Cherokee County, Ala.

It is impossible to describe by words the enormous quantity of iron ore that is in sight on the land of this company. Said a prominent railroad man of the South: "I could not believe your statement as to the quantity, (200,000,000 tons in sight), but now that I have seen your ore deposits, I wonder how you put so low an estimate on them."

Prof. Robinson, of Bowdoin College, Brunswick, Maine, says: "I found at Bluffton iron ore in abundance, partly in solid cliff masses containing hundreds of thousands of tons, and partly in the form of gravel and small boulders lying in great banks similar in appearance to the gravel banks of New England. Whether there was as much of the gravel as of the bluff ore I could hardly judge, but it was very clear that the quantities of both were simply enormous."

G. S. Patterson, mining engineer, of Anniston, Ala., reports: "The amount of ore in sight was certainly beyond my expectation, though I was prepared to find a large deposit. The Bluff, as it is called, is a solid mass of ore on the side of a mountain, easily approachable, and can be mined cheaper than at any point in Alabama or Georgia, with which I am familiar."

Mr. Wm. H. Edmonds, of the Manufacturers' Record, says: "As to

the quantity of ore here, I don't suppose that all the furnaces in Alabama could use it up in a lifetime."—See Manufacturers' Record May 18, 1889, article entitled "BILL ARP AND BLUFFTON."

Ore can be delivered at furnaces built here at a cost not exceeding 50 cents per ton.

With high grade ores, analyzing over 50 per cent. metallic iron, delivered at the furnace at the above-named price, is there any possibility of such a place as Bluffton not being able to produce iron at figures which will yield a profit despite the duldest of dull times?

Prof. J. H. Pratt, of Birmingham, Ala., reports on samples selected from our property by Mr. Edmonds and Mr. G. S. Patterson as follows:

The sample of brown iron ore, marked "Bluff Ore," contains—	The sample marked "Gravel Ore" contains—
Metallic iron, - - 52.37 per cent.	Metallic iron, - - 53.23 per cent.
Phosphorus, - - - 0.782 "	Phosphorus, - - - 0.931 "
Silica, - - - 14.60 "	Silica, - - - 6.25 "
Water combined, - 8.10 "	Water combined, - 10.20 "
Moisture at 100° C - 2.50 "	Moisture at 100° C - 1.68 "

### LARGEST DEPOSIT OF IRON

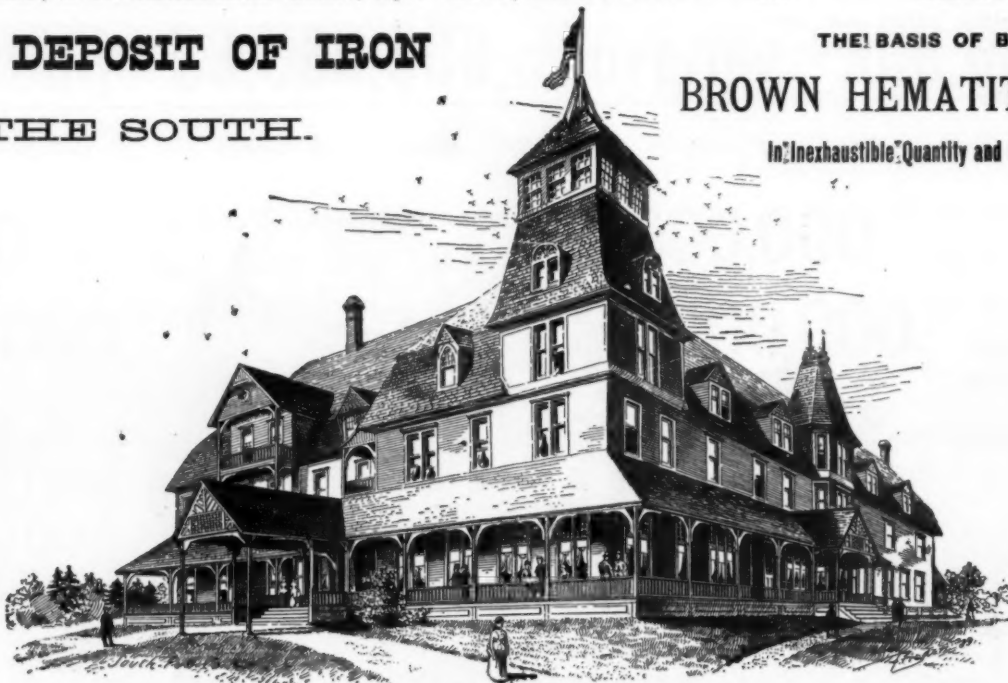
IN THE SOUTH.

THE BASIS OF BLUFFTON:

### BROWN HEMATITE IRON ORE

In "Inexhaustible" Quantity and Excellent Quality.

Ore can be delivered at furnaces built here at a cost not exceeding 50 cents per ton.



THE SIGNAL—NOW OPEN AT BLUFFTON.

Located on the Selma Division of the East Tennessee, Virginia & Georgia Railway, midway between Rome and Anniston, and only two miles and three-fourths from the East & West Railroad, of Alabama.

## FREE MANUFACTURING SITES.

### Rich Manganese Deposit.

There are several very large and rich outcroppings of Manganese Ore on the company's property, and the deposits have been examined by experts and pronounced exceedingly valuable. Specimens have been sent to various steel works in Pennsylvania, and the result is a large inquiry about the ore. From present development can be seen several hundred tons of this ore. There is always a ready market for manganese, and it is quoted at \$18 to 20 per ton in Pittsburgh and Chicago. More extensive work will be done on these deposits within a very short time, as the banks are easily accessible. Shipments will soon be made.

### OTHER RESOURCES.

Fire Clay and Brick Clay—Yellow Ochre.

On this property are large deposits of fire clay, which has stood the highest test. Shipments have been made to Chattanooga, Tenn., and it is pronounced a superior quality. A fire brick works could be established here that would prove extremely profitable.

In brick clay there is an inexhaustible quantity, with an abundance of water running through the clay land. Brick manufacturing here would pay handsomely, and the company would lease the clay beds for a term of years at a very low royalty.

The four charcoal pig-iron furnaces surrounding this property are nearly as valuable to this place as if they were located on the land of the Bluffton Company. The pig iron manufactured by them could be bought and utilized here for every kind of manufactured iron. They are so near that freight on the raw material would be comparatively nothing. Surrounding us, as these furnaces do, it makes Bluffton a centre.

SEND FOR PROSPECTUS. ADDRESS

# Bluffton Land, Ore & Furnace Company, Bluffton, Ala.



# FORT PAYNE, Alabama.

★ COME TO ★

## The NEW ENGLAND CITY of the South.

Climate Unsurpassed. Abundance of Pure Water. Drainage Excellent.

## No Better Point in the Union

For Safe and Profitable Investment.

Situated on the MAIN LINE of the QUEEN & CRESCENT ROUTE, fifty-one miles Southwest of Chattanooga, and ninety-one miles North of Birmingham.

Elevation is from 895 to 1,600 ft above the sea, and above fever districts.

DeKalb County is entirely free from debt; taxes light. Most liberal encouragement given to industries of every kind.

Iron Furnace and Rolling Mill will be constructed immediately, and other industries of various kinds are under contract.

Correspondence solicited from those who contemplate coming into the South to establish any kind of manufactories.

The different industries will employ at least two thousand skilled workmen, which will secure a population of over ten

thousand, independent of the many industries contemplated.

Iron of the best quality can be manufactured at as low cost per ton as in any other locality in the South.

Coal and iron are being developed rapidly of a superior quality.

Fine timber abundant and wood-working machinery of every kind can be profitably employed at this point.

The Company is prepared to give every reasonable encouragement to manufacturers who will locate at this point.

Correspondence solicited.

### CAPITAL \$5,000,000.

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## FORT PAYNE COAL & IRON COMPANY, Fort Payne, Ala.

# DENISON, TEXAS.

The "Yankee" City of the Southwest,

— AND —

✻ GATEWAY ✻

— TO THE —

## GREAT STATE OF TEXAS.

The City of Denison presents the Finest Opportunity of any City in the Southwest for the Investment of Capital in Large or Small Sums.

**D**ENISON is situated in Northeastern Texas near inexhaustible beds of coal and iron, surrounded by the finest fruit lands in the world, and adjoining the INDIAN TERRITORY, which, in the nature of things, must in a few years be opened to settlement.

The growth of Denison has been a natural one, the city having reached its present size—16,800 population—in sixteen years.

The city is regularly and beautifully laid out. Railroads run from it in four different directions. The Missouri, Kansas & Texas alone does an enormous business, having 54 miles of switch track in Denison, employing 500 skilled workmen and disbursing \$150,000 a month in wages.

The first public school in the State was established here, and the city's elegant two and three story brick school buildings, surrounded by attractive grounds, are well arranged for the use of the white and colored children. Its schools are in session ten months in each year.

We have sixteen church societies, seven of which are colored.

The city is well supplied with pure water from its numerous private wells—dug in the ground—and its first-class system of water works, giving the citizens ample protection against serious loss by fire, and enabling the insurance companies to rate the city first class as to fire hazard. Rate of taxation low.

The city has four miles of street railway, with six miles now building to be operated by steam motor; has two electric light companies and a telephone plant. It has an influential New England colony, and counts among its citizens people from every State in the Union.

A large hotel, to cost \$125,000, is to be erected here this year, and a large steel plant with \$2,000,000 of capital is contemplated.

30,000 bales of cotton were shipped from Denison in 1888. 200,000 baskets of strawberries and several carloads of peaches and other fruits have been shipped to market this season.

The Denison Canning Co., capitalized at \$100,000, has just been organized, and ground has been broken for a large fruit and vegetable canning factory.

A cotton mill company is being formed with a capital of \$500,000. Denison citizens have subscribed \$150,000 to this enterprise; Eastern capitalists will add \$350,000.

The climate of Denison is magnificent, situated nearly 800 feet above sea level. In summer it is warm, but far cooler than many cities farther North, and from 6 P. M. until after sunrise it is always cool. The city is very healthy.

The capacity of the ice factory is being increased from a daily output of 15 tons to 30.

The Denison Land & Investment Co. is prepared to give every reasonable encouragement to manufacturers, and solicit correspondence from such manufacturers as contemplate coming into the Southwest to locate.

Address all communications to

## THE DENISON LAND & INVESTMENT COMPANY, DENISON, TEXAS.

Paid-Up Capital, - - - - - \$1,200,000.

### OFFICERS:

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MILTON H. FRENCH, Vice-President and General Manager.

ARTHUR L. BERRY, Secretary and Treasurer.

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# Morristown, Tenn.

## The Plateau City of the Great Valley of East Tennessee

is beautifully located on a plateau of Bay's Mountain, about equi-distant from the Cumberland Mountains which bound East Tennessee on the northwest, and the Alleghany Mountains which bound it on the southeast, and is 300 feet above Holston River, which washes the north base of the plateau three miles from the city. Its mean elevation above sea level is about 1,350 feet, while the hills and mountains immediately surrounding it rise to an altitude of 1,935 feet, affording views of surprising extent and grandeur, and at the same time so modifying the temperature that the thermometer rarely registers higher than 90° in summer or lower than 10° in winter. Its drainage is admirable, and malaria is unknown. It has nearly trebled its population since 1880, having now about 4,000 inhabitants. It is the commercial and business center of the richest and most extensive agricultural district in the State, where all the cereals and all the grasses

and tobacco are grown to perfection, and where fruits and berries abound. It has hundreds of thousands of acres of uncultured forests accessible to it, abounding in Poplar, Pine, Hemlock, six varieties of Oak, Chestnut, Hickory, Cedar, Maple, Birch, Beech, Sycamore, Gum, Locust, Laurel, Buckeye, Mulberry, Ash, Cherry and Walnut. The Celebrated East Tennessee Marble underlies a part of the city, and it is surrounded with rich deposits of Iron Ore, Manganese Ore, Zinc Ore and Lead Ore. It has been said by one who has made a study of the subject, that within a radius of 50 miles around Morristown every variety of iron ore in the United States can be duplicated, and a coke can be made equal to Connellsville coke. We claim without hesitation that Morristown has in its immediate vicinity richer mineral ores, and a greater variety of them, than any city on the Continent.

### MORRISTOWN

has Railroad Facilities equal to any city between Lynchburg and Chattanooga, and they will be speedily increased by the completion of the Carolina, Cumberland Gap & Chicago Railway, making the shortest possible railway route between the great cities on the Ohio River, Cincinnati and Louisville, and the seaboard cities, Charleston, Port Royal and Savannah. Besides, the Baltimore & Ohio Railway will probably extend a branch to it from Lexington, Va., and the Tennessee Midland will in all probability be built to Morristown, and a line be built giving direct connection with Atlanta.



MAP SHOWING RELATION OF MORRISTOWN TO THE COUNTRY AT LARGE.

### MORRISTOWN

has a citizenship composed almost exclusively of native born Americans. It boasts a splendid system of Graded Schools, Five Commodious Brick Churches, the finest Courthouse in Upper East Tennessee, an Opera House that will seat 600 people, two Solid Well Managed Banks, a flourishing Building and Loan Association, two of the Largest Commercial Flouring Mills in the South, Stove Works, an Agricultural Implement Factory, two Woodworking Factories, a Tobacco Factory, a Carriage and Wagon Factory, and many industries of lesser note.

It is lighted with electricity, and has water works under contract, and is now inaugurating a system of street railways. Its climatic advantages, its unsurpassed record for healthfulness, its abundance of pure water, its central and beautiful location, its transportation facilities, its fruitful agricultural surroundings, its contiguity to rich and exhaustless fields of iron, manganese, zinc and lead ores, marble, coal and timber, mark it as a place destined to be the commercial, manufacturing and railway emporium of Upper East Tennessee, Western North Carolina and Southeastern Kentucky.

To expedite this destiny the city authorities have wisely exempted from taxation for ten years all manufacturing establishments that will give employment to fifteen or more persons, and the county authorities have done the like, so that manufacturing establishments will be exempt from all taxation for ten years, except the merely nominal tax for State purposes. There has been no "boom" or inflation of prices at Morristown, and, as it possesses within itself and contiguous to it almost every element of wealth, it now presents the most inviting field for investment of any city in the South.

Persons who may desire fuller information can obtain it by calling on or addressing

## MONTVUE LAND COMPANY

POSTOFFICE BUILDING, — MORRISTOWN, TENNESSEE.

## RANDOM NOTES ABOUT THE

# “MODEL CITY of the South.”

**T**HIS is the title bestowed upon Anniston, Alabama, at its beginning by persons who were impressed by the provisions its founders had made for the comfort and health of its future population, and the farseeing wisdom and judgment that entered into all the plans for its development. And it has amply maintained its right to the title. It has always been as its originators designed it should be—a model in every respect. This idea was incorporated in its foundation, and has been a part of its growth up to the present time.

Anniston is a town of about 12,000 inhabitants, and its population is rapidly increasing. Its numerous industries employ about 6,000 men, and pay out over \$60,000 a week in wages. It is one of the most beautifully located towns in America. Travelers who have visited it say that no more attractive site for a city could be found anywhere in the world. It is clean, sober, moral and healthful. It has churches, schools, water works, electric lights, gas, well-paved streets, handsome stores, fine residences and all the conveniences and attractions of a modern, well-appointed city. It is the industrial and commercial center of one of the richest iron districts in the world. It is surrounded by a splendid agricultural country. It has unsurpassed advantages for the manufacture of everything into which wood and iron enter. It possesses every attraction needed to make it a delightful place for a home or a health resort.

The one remark most frequently made in regard to Anniston is that it is a “solid town,” and this is probably its most noteworthy feature. It has had no sudden, fictitious growth, no abnormal development, no unnatural stimulation to be followed by reaction and succeeding depression. Its development has been on a substantial and permanent basis. Manufacturers have been drawn here by the superior quality of Anniston iron, the abundance and cheapness of timber, and other natural advantages, as well as by its attractions as a place for a home. Its facilities and advantages as viewed from the standpoint of business are supplemented by its delightful and invigorating climate, its unsurpassed healthfulness and the beauty of its surroundings.

The following are analyses of the ores used by the Woodstock Iron Co.:

“REED’S BANK” ORE.		“SILVER CREEK” ORE.	
Metallic iron . . . . .	60.02	Metallic iron . . . . .	50.83
Phosphorus . . . . .	.08	Phosphorus . . . . .	.008
“WASHER BANK” ORE.			
Metallic iron . . . . .	55.53		
Phosphorus . . . . .	.06		

There is one peculiarity of Anniston that is very strong in its favor—the fact that the larger part of the manufacturing capital invested here is local capital. The founders of the city didn’t simply buy up some thousands of acres of land and then say to the world, “come and take advantage of the unexampled opportunities we offer, buy our stock, buy lots from us, establish manufactures.” They first showed their faith in Anniston’s advantages by investing here their own money. They built the furnaces, the cotton mill, the car shops, the car-wheel works, the water works, the Anniston & Atlantic Railroad, the Anniston & Cincinnati Railroad, etc. They built the splendid pipe-works plant that has just gone into operation, and the two new furnaces about to go into blast. As fast as they made money they have invested it right here.

Anniston is blessed with a delightful and healthful climate. It is never cold—the most delicate persons can spend the greater part of the time out of doors the year round. In summer the climate is not such as to debilitate and weaken, as is the case in the North and in less elevated localities in the South. The thermometer registers less heat, and even the same temperature is far less apprehensive here than where the percentage of humidity is greater. Its location in the mountains ensures an unfailing breeze, and no matter how warm it may be in the sun through the day, the nights are always cool. The climate seems particularly suited to those who are troubled with throat or lung diseases. A physician living near here, who had suffered for years with a severe bronchial trouble, states that he had lived in Southern California, Colorado, Florida, at Aiken, S. C., and in the South of France, and that the climate of none of these places did him as much good as that of Anniston has done. There are persons here now in vigorous health who believe they would not be living but for their removal to Anniston.

Mr. Albert Howell, of Atlanta, said recently in an interview in the Atlanta Constitution: “Anniston is the coming city. I was there last week. You cannot conceive the bustle and business of that wonderful city. Homes are being built as rapidly as possible, but the city has outgrown itself, and two thousand residences, if they were started at once, would be rented before completion. The other cities may blow and bluster, but Anniston is building, and in ten years will be the best city in Alabama. You mark this prediction.”

INFORMATION ABOUT ANNISTON, MAPS, PROSPECTUSES, &c., &c., MAY BE HAD FROM THE

## ANNISTON CITY LAND COMPANY, Anniston, Ala.



# SOME FACTS ABOUT FLORENCE, ALA.

Florence is in North Alabama, near the Tennessee line, on the Tennessee river, which is navigable here for large steamers. It is on the Memphis & Charleston Railroad, and the Nashville & Florence branch of the Louisville & Nashville Road.

There are many other places in the South possessing the advantages of a good climate, healthfulness, natural resources and manufacturing capabilities more happily combined and in a higher degree than can be found in any other part of the country. It is believed, however, that at no point in the South, and hence nowhere in America can there be found an aggregate of so many unsurpassed advantages and attractions as exist at Florence.

Florence can make iron as cheaply as any place in Alabama. It has facilities for the manufacture also of cotton goods equal to those of any other place. Anything that uses wood as a raw material can be made here at as low a cost as anywhere in the South.

Thousands of acres of iron ore of a high grade within a few miles of Florence are owned by Florence companies. Limestone is quarried within the town limits. There is enough of it to last for ages.

Cotton mills would get a large part of their supply from the country around Florence. Cypress creek furnishes water power and mill sites enough to make Florence the Lowell of the South.

North of Florence, and up the Tennessee river, there are large areas of timber, embracing a wide variety of hardwoods—forests that the ax has never touched.

Besides its industrial possibilities, Florence is a point of great commercial importance, and could be made the center of an enormous mercantile business. It has the advantage of both rail and river transportation and of competing railroads. Certain railroad movements are in progress now that will give it direct communication in every direction and by different lines.

Florence is surrounded by a wide extent of fertile and productive country, as well adapted for farming, stock raising, fruit growing, truck farming, dairying, &c, as any in the world. Further, it has a climate that is delightful the year round. Its health record cannot be surpassed. It has no malaria. In fact, people who live here enjoy a remarkable exemption from ailments of every sort. It has an abundance of the purest water.

For beauty of location Florence is without a peer. The Tennessee river at this point is as romantic and beautiful as the Hudson. The rolling character of the country, the slopes and hills and alternating valleys furnish a picture to charm an artist's eye. The lovely Cypress creek, a deep and rapid stream emptying into the river just below the town, presents at every turn in its tortuous course a scene of entrancing beauty. The views from some of the higher hills are as fair as the eyes of man ever rested on.

Florence is making more rapid progress, proportionately, than any other town in America. This is a strong statement but it is true. And its growth is on a solid and permanent basis.

Florence is not undergoing any wild real estate boom. Its managers are not seeking to advance real estate prices. It is not their plan to get a quick return for the money they have invested, by the rapid sale of lots at unnatural prices. It is their aim to first build up a town, to locate factories and secure a permanent population, when land will have an actual value and sell at prices from which there will not be a subsequent disastrous reaction. At present real estate is much lower in price than in any other town in the South that has made half the progress Florence has made.

Since the first of September, 1888, over 25 industries have been located at Florence, with an aggregate cash capital exceeding \$2,000,000. This remarkable growth is the result of efforts to induce people to simply investigate the attractions of Florence. Investigation and comparison with other places, on the part of any who are looking for a place in the South to locate, will in nearly every case result in the selection of Florence.

The following are some of the industries in Florence. Some of these are in operation; others are nearly ready for work and others have but recently commenced work on their buildings: A furnace about ready to go into blast, and another partly constructed; a stove factory; a hardware company, with a capital of \$300,000 to manufacture fine building hardware, &c.; a wagon factory, with capital of \$150,000; an agricultural implement works; a handle factory; a woodenware factory; a sash, door and blind factory; a cedar bucket factory; a pump factory; planing mills; a factory to make wooden butter plates such as grocers use; a flour mill; a cotton mill; a jeans factory; a gingham factory; a woolen mill; a cotton gin; a marble company; a roofing and paint company; a shoe factory; a suspender factory; a compress, packet and ferry company; three building and loan companies; a canning factory; several brick factories; a dummy railroad company, and several other enterprises.

The aggregate capital of the industrial, mercantile and development enterprises in Florence exceeds \$15,000,000.

A year ago the population of Florence was 2,000. It is now more than 8,000. There are more than 1,100 carpenters at work in Florence and they can't build houses fast enough to keep up with the increase in population. Before the first of January next there will be 15,000 people living here.

Limited space allows here only the briefest summary of a very few of the more important facts about Florence. For more detailed information write to any of the following companies. Or better still, come down and see for yourself. Investigation is all that Florence asks or needs.

Railroad and Improvement Co.

Lauderdale Manufacturing Co.

Cotton and Iron Co.

Florence Investment Co

# MIDDLESBOROUGH

AND

# CUMBERLAND GAP.

The Future Iron *and* Steel Center of America.

THE PASSAGEWAY FOR RAILROADS BETWEEN THE WEST AND THE EAST.

A SOURCE OF COKE SUPPLY FOR THE SOUTH AND WEST.

The Furnaces and Factories already assured will make it one of the largest manufacturing towns in the South.

## NEW INDUSTRIES

Being rapidly added to those already in operation and contracted for.

# COAL, IRON, TIMBER

AND OTHER RAW MATERIALS.

Abundant Water for all Manufacturing Purposes.

WATER FROM PURE MOUNTAIN STREAMS FOR DOMESTIC USES.

DELIGHTFUL AND HEALTHFUL CLIMATE.

Surrounded by Valleys of Rich and Productive Farm Lands.

SEND FOR CIRCULARS, PROSPECTUS, MAPS, ETC., TO

**ALEX. A. ARTHUR,**

General Manager, Knoxville, Tenn.

**JOHN M. BROOKS,**

Resident Manager, Middlesborough, Ky.



# Southern Railroads.

## E. T., Va. and Ga.'s Year.

Probably the most striking evidences of the South's prosperity are afforded by the reports as to earnings and expenses of the great Southern railway systems during the business year just closed. We have already referred to the great increase in the business of the Georgia Central, Louisville & Nashville, Chesapeake & Ohio, Cincinnati Southern and connections and other Southern railway systems, all of which routes are now and have been taxed to meet the demands of travel and transportation. The annual report of President Thomas, of the East Tennessee, Virginia & Georgia System, just submitted, emphasizes the record of Southern activity and progress. According to the report the total mileage of the main line and branches operated during the year just closed is 1,067.1. The gross earnings amounted to \$5,301,624.25, and the general expenses to \$3,374,665.94. Net earnings, \$1,926,958.31; minus taxes, \$1,793,014.40. The net earnings per mile of road operated were \$1.805.79. \$191,706.31 represents the increase in revenues as compared with the returns of the very prosperous season of 1887-'88. \$2,500,000 of \$6,000,000 improvement bonds have been sold. Trackage, rolling stock and terminal facilities have been improved, and the progressive policy inaugurated will be continued as far as practicable. The East Tennessee, Virginia & Georgia, with its strategic branches and connections, now constitutes a veritable backbone railway system from the Potomac to the Gulf of Mexico, and the prosperity which it exhibits is one of the best possible proofs of the general and steadily growing welfare of the South.

THERE are nine counties in the Northern part of Arkansas, having an aggregate population of about 110,000, which are not touched by a single line of railroad. It seems a little remarkable that in this day of progress such a large territory, with such an aggregate of population, should be absolutely without railroad facilities. There must certainly be a chance in that section for some profitable railroad building.

EX-GOVERNOR CHAMBERLAIN, receiver of the South Carolina Railroad, has been authorized by the court to put the road in thorough repair, replace worn track with steel rails, etc. This will prove of great interest to the people along the line.

**BUILDING RAILROAD—FORT WORTH, TEXAS,** November 9, 1889—Messrs. Mallory, Cushing & Co., of Omaha, Neb., have contract for 100 miles of the Fort Worth & Albuquerque Railway from Fort Worth in a northwesterly direction. This line opens up a splendid new country, rich in coal, iron and other minerals, salt, gypsum, &c., and a fine farming country.

CHAS. C. BLACK, Pres.

## An Important Railroad.

[Spec. correspond'ce MANUFACTURERS' RECORD.]

SALISBURY, N. C., Nov. 12, 1889.

The Yadkin Railroad, already mentioned in the MANUFACTURERS' RECORD as to be built, is to run from Salisbury to Norwood in Stanley county, 40 miles. Surveys begin this week, and the work of construction will commence early in December. The directors are Saml. H. Wiley, Theodore F. Kentz, V. Mauny, Wm. Smithfield and Saml. Pemberton. The officers are T. F. Klutz, of Salisbury, president; V. Mauny, of Milledgeville, N. C., treasurer. The contract for the 40 miles has been let. The road will pass through the famous gold, silver and copper veins of Rowan county, and through a range of granite said to be equal to any in United States. It will follow for several miles, substantially, the Yadkin river, which from Salisbury to the South Carolina line will yield over 100,000 horse-power. There are slate quarries in Stanley county that are said by competent experts to be equal in every way to those of Buckingham county, Va. The road will traverse areas of original forests, and there will be tributary to it thousands of acres of the finest long-leaf pine, of oak, hickory, dogwood and persimmon. It will also make accessible quarries of fine brown sandstone, and of the widely-known North Carolina mill-stone grit, which makes buhrs equal to the French. The road will make important connections West and South. Among other results that will be accomplished, it will render possible the utilization of the hundreds of thousands of dollars now locked up in the pyrite, gold and copper mines of Rowan county. These ores are refractory, and cannot now be profitably handled. This road, however, will place them in close connection with the South Carolina phosphate rock, with reduction works to extract the sulphur from the ores and use it in the manufacture of sulphuric acid, with which to treat the phosphate rock. On the fertilizers thus produced, and on other by-products there would be sufficient profit to reduce the cost of handling the ores to a very profitable basis.

THE New York Equipment Co., It is stated, has a contract from the Montgomery, Tuscaloosa & Memphis Railway Co. for the equipment of the road. There will be seven eight-wheel locomotives, valued at \$8,500 each; eight ten-wheel locomotives valued at \$9,000 each; eight first-class passenger cars, valued at \$4,500 each; six second-class passenger cars, valued at \$4,000 each; five baggage, mail and express cars, valued at \$3,100 each; five cabooses, valued at \$900 each; 200 flat cars, valued at \$325 each; 150 box cars, valued at \$440 each; 100 gondolas, valued at \$500 each. The total value of the equipment contracted for is \$381,500. By the provisions of the contract the locomotives are to be built at Dunkirk, N. Y., the passenger equipment at Hegewisch, Ill., and the freight cars at either Anniston or Decatur, Ala. The contract requires that all the equipments shall be first-class and furnished with latest improvements.

It is gratifying to note the very decided improvement in the finances of the Baltimore & Ohio Railroad under its present management. The business of the road is rapidly increasing, and its earnings, both gross and net, show a very marked growth that indicates the possibility of a resumption of dividends in the not very distant future.

## President Eckstein Norton Delighted.

President Eckstein Norton, of the Louisville & Nashville, who is now traveling in the South with Vice-president M. H. Smith, has just been interviewed at Nashville by a reporter for the American, and from what he is credited with saying, he is delighted with the condition of the road and with its successful report for last year just issued:

The earnings during the fourth week in October were \$569,570, or an increase of \$127,221 over the corresponding week of last year. The increase for the entire month over October, 1888, was \$323,251."

"Are the increased earnings due to an increase in any especial line of business?" was asked.

"No. They are due to a general increase in all classes of business. The annual report for the year ending June 30 last, showed that during the four years previous to July 1 last, the rolling stock of the road had been increased about 41 per cent., and by January 1 next increase in rolling stock will have reached over 60 per cent.; yet we are now short of cars.

We have received 20 new locomotives since July 1, 10 consolidation and 10 switch engines, and have contracted for 30 more consolidation engines to be delivered within the next few months. On July 1 we had contracted for 1,250 cars that had not been delivered, and have since contracted for 650 more, all to be delivered by January 1, making a total for the six months of 1,900 cars, 500 refrigerator cars, 500 box and 900 coal and ore cars.

A DISPATCH from Dallas, Texas, says: "It is understood that the Fort Worth & Rio Grande has made arrangements to build from Comanche to Goldthwaite, crossing the Colorado river about 6 miles west of that city, and from thence to San Saba and Llano. By that route their line would run for 20 miles over the undeveloped coal fields of San Saba, and bring the iron fields of Llano and the coal fields of San Saba within 20 miles of each other. This would give direct connection with Dallas over the Central and Atchison Railways."

THE Ohio Falls Car Co., of Albany, Ind. has received a contract to build a half-million dollars' worth of cars for the Central Railroad, of Georgia, consisting of 1,200 freight cars and 22 passenger coaches. This is one of the largest contracts ever received by this company. The contract was closed by Mr. L. G. Mathews several days ago. The Ohio Falls Co. now has enough work on hand to keep 2,000 men busy for four months. The company can with a full force turn out 22 freight cars a day and two passenger coaches a week.

**BUILDING NEW FURNACE—NASHVILLE, TENN.,** Nov. 6, 1889.—This company on the 1st inst. broke ground for the erection of a 45-ton iron furnace. We hope to be in blast by the middle of May or first of June, 1890. Ores—brown hematite; fuel—charcoal. Outlay in furnace and opening ore mines, \$100,000, all provided. Company owns 6,000 acres of heavily timbered ore lands. Location 18 miles south of Columbia, Tenn., on the Nashville, Florence & Sheffield branch of the Louisville & Nashville Railroad.

ROCKDALE MINING & MANUFACTURING CO.

**COKE OVENS—BIRMINGHAM, ALA.,** Nov. 4, 1889. The mines of the Horse Creek Coal & Coke Co. are located on the Kansas City, Memphis & Birmingham Railroad, 28 miles west of Birmingham, and are now ready for an output of 450 tons per day. Our coal is a superior steam, gas and grate coal, as fully tested by various railroads, manufacturers and domestic consumers here. Will shortly build fifty coke ovens.

WALTER MOORE, President.

**TO PROSPECT FOR NATURAL GAS—HENDERSON, KY.,** Nov. 6, 1889.—A company has been formed here to develop natural gas, petroleum, oils, &c., in this vicinity. We expect to begin boring in a very few days.

O. W. RAS Sec'y and Treas.

## Railroad Construction

**Athens, Ga.—Dummy Line.**—A dummy line will be built by the company reported elsewhere in this issue as organized to develop the Lilly property.

**Augusta, Ga.—Railroad.**—A. C. Hartshorne, of New Jersey, and S. T. Forstner, of New York, have been inspecting the Augusta, Gibson & Sandersville Railroad with a view to purchasing. If purchased it will probably be made a standard-gauge road.

**Baltimore, Md.—Cable Railroad.**—It is reported that the Baltimore Traction Co. will at once lay a cable road, previously mentioned. The cost is to be \$3,000,000.

**Baltimore, Md.—Electric Railway.**—The mayor has consented to sign the ordinance permitting the North Avenue Railway Co., lately reported as contemplating the construction of a road, to use electricity or other improved rapid transit.

**Bartholomew, Ark.—Railroad.**—It is reported that a railroad is being constructed to pass through Popular Bluffs.

**Bon Air, Tenn.—Railroad.**—A railroad is contemplated to extend from Bon Air to Rockwood. It is reported that the charter has been applied for.

**Bowling Green, Ky.—Railroad.**—Meyer & Morris, railroad contractors, are making a survey and estimate of the cost of building the Bowling Green & Northern Railroad, previously reported.

**Braidentown, Fla.—Railroad.**—W. C. Patten, of Braidentown; Hamilton Gillespie, of Sarasota, and others have incorporated the Manatee & Sarasota Railway & Drainage Co.; capital stock \$50,000.

**Buchanan, Va.—Railroad.**—Major Jolliffe and a party of assistants are making a re-survey of the Virginia Western Railroad from Buchanan westward, previously mentioned.

**Buckhannon, W. Va.—Railroad.**—The West Virginia Central & Pittsburgh Railroad Co. (office, Piedmont) and the Midland Railroad Co., recently reported to jointly build from Buckhannon to Charleston, are securing the right of way for the proposed line.

**Charleston, S. C.—Ex-Gov. Chamberlain** has received authority to put the South Carolina Railroad in thorough repair, and to issue receivers' certificates in payment for all expenses incurred.

**Charlestown, W. Va.—Railroad.**—The building of a railroad up Elk river is being agitated.

**Chattanooga, Tenn.—Railroad.**—At a meeting of the Chattanooga Southern Railroad Co., J. W. James, treasurer of the Chattanooga Union Railroad Co., mentioned last week, was elected president. It is rumored that the latter road has secured the control of the former, and that this will insure the further building of it as rapidly as possible.

**Chunchula, Ala.—Pole Road.**—MacMahon & Buck, lately reported as building a pole road from Thirty-One Mile Bluff, on the Mobile river, towards Chunchula, have completed four miles, and may extend it six miles further. The outfit has been purchased.

**Claremont, Va.—Railroad.**—The report referred to last week that the Norfolk & Western Railroad Co. (office, Roanoke) would build a branch road to Claremont and establish a coaling station is not confirmed.

**Clarksville, Tenn.—Railroad.**—Citizens will subscribe \$50,000 towards securing the building of the road from Clarksville to Dickson, previously mentioned, by the Louisville & Nashville Co. (office, Louisville).

**Comanche, Texas.—Railroad.**—The Fort Worth & Rio Grande Railroad Co. (office, Fort Worth) will extend its lines to Comanche from Dublin. Bids for grading are being received.

**Davis City, W. Va.—Railroad.**—The Hulings Lumber Co. is building a railroad from Hendricks.

**Eureka Springs, Ark.—Electrical Railroad.**—Charles E. Davis is completing arrangements for the building of an electrical railroad, as reported several weeks ago.

**Fort Smith, Ark.—Railroad.**—The Secretary of State at Jefferson City, Mo., has issued a charter to the Kansas City, Nevada & Fort Smith Railroad Co., capital stock \$3,000,000. E. S. Martin has been elected president. The road will be built at once to Nevada, Mo., and thence to Fort Smith.

**Fort Smith, Ark.—Railroad.**—A charter has been granted to the Pittsburgh, Columbus & Fort Smith Railroad Co. The capital stock is \$1,000,000, and the road is to extend from Pittsburgh, Kan., to Fort Smith, 192 miles.

**Fort Worth, Texas.—Railroad.**—The Fort Worth & Albuquerque Railroad Co. has been reorganized with Charles C. Black as president. Contract for constructing 100 miles of road northwesterly from Fort Worth has been awarded to Mallory, Cushing & Co., of Omaha, Neb.

**Frederick, Md.—Railroad.**—The question of the projected railroad from Frederick to Georgetown, D. C., lately mentioned, is being agitated.



and it is likely a definite conclusion will be reached by the close of the year.

Gadsden, Ala.—Railroad.—The Chattanooga, Gadsden & Birmingham Air Line Railroad Co., recently reported as having completed its surveys, has pending negotiations by which it is believed a syndicate will assume control of and construct the road at once.

Greenville, Miss.—Street Railway.—The Greenville Street Railway Co. contemplates extending its road.

Hagerstown, Md.—Railroad.—The Cumberland Valley Railroad Co. (office, Chambersburg, Pa.) is endeavoring to extend its lines to the Broad Top coal district of Pennsylvania.

Humboldt, Tenn.—Street Railroad.—The Humboldt Street Railroad Co., recently reported as having been incorporated, has closed a contract for the stock necessary to operate the road, and will soon make arrangements for the rails and cars.

Knoxville, Tenn.—Street Railroad.—The Middlebrook Street Railway Co., reported last week as chartered to build a street railroad by Samuel McKinney and others, will probably make it an electrical railroad. Nothing will be done at present.

Lexington, Ky.—Railroad.—The Louisville Southern Railroad Co. (office, Louisville) will, it is stated, extend its road from Lexington to Richmond.

Lexington, Ky.—Railroad.—The Louisville Southern Railroad Co. (office, Louisville) are locating for the extension of its road to Middlesborough, previously reported.

Little Rock, Ark.—Railroad.—A mortgage has been filed for \$45,000,000 on the St. Louis, Iron Mountain & Southern Railroad (office, St. Louis, Mo.)

Little Rock, Ark.—Railroad.—A road is being built from McAllister, Indian Territory, to Little Rock.

Luray, Va.—Railroad.—Supt. Flicker and Assistant Engineer Low, of the Shenandoah Valley Railroad (office, Roanoke, Va.) have been looking over the country near Luray with a view to selecting the best location for the Washington branch of the Shenandoah Valley Railroad. It is stated that engineers are now making the preliminary survey.

Lynchburg, Va.—Electric Railway.—The time of privilege allowed the Lynchburg Street Railway Co. in introducing electricity as a motive power has been extended six months from December 10, 1889.

Macon, Ga.—The Marietta & North Georgia Railroad, lately reported as having obtained permission from the legislature to extend its road from Marietta to Atlanta, will commence work shortly. The road will be completed by next August.

Marion, Ky.—Railroad.—The voters of the Marion district, Crittendon county, have subscribed \$15,000 in the Ohio Valley Railroad stock to the Princeton, Marion & Ohio River Railroad, contemplated from Princeton to the Ohio river by the way of Marion.

Maryville, Tenn.—Railroad.—J. Robert Ervin, engineer of the Knoxville Southern Railroad is in Linnville, N. C., making a preliminary survey of the line of road mentioned last week.

Maxton, N. C.—Railroad.—The railroad syndicate have completed arrangements for the construction of the Maxton & Pee Dee Railroad, previously mentioned.

Memphis, Tenn.—Railroad.—The Louisville, New Orleans & Texas Railroad Co. is locating a branch line. It will probably leave the main line at Clarkdale, Miss. Termination not yet decided upon.

Memphis, Tenn.—Railroad.—The Kansas City, Fort Scott & Memphis Railroad Co. (office, Kansas City, Mo.) is preparing to expend \$250,000 in improving their line preparatory to the completion of the great Mississippi bridge.

Memphis, Tenn.—Railroad.—The Raleigh Springs Railroad Co. will build the railroad to Raleigh lately reported. It will be nine miles long, and will be operated by steam and electric power.

Morgantown, W. Va.—Railroad.—J. F. Temple, of Waynesburg, Pa., is conferring with the officials of the Pennsylvania Railroad Co. relative to the extension of the Waynesburg & Washington Railroad (office, Pittsburgh) from Waynesburg through the Mt. Morris oil fields to Morgantown, W. Va.

Murfreesboro, Tenn.—Street Railway.—The Murfreesboro Street Railway Co., mentioned last week, will proceed with their work as soon as material arrives.

New Castle, Va.—Railroad.—The projected Craig Railroad, mentioned several weeks ago, is being finally located.

New Orleans, La.—Electric Railroad.—The Crescent City Railroad Co. will meet on Nov. 18 to consider the proposition of the Electric Traction & Manufacturing Co. to equip their road with storage battery cars.

New Orleans—Belt Railroad.—The construction

of a belt railroad is being agitated. A. Britton can give particulars if anything is done.

Owensboro, Ky.—Railroad.—Morgantown, Woodbury and Sugar Grove precincts of Butler county will vote on a proposition to subscribe \$24,000 to the stock of the Henderson State Line Railroad on the 21st of November.

Palatka, Fla.—Railroad.—Rapid progress is being made in the construction of the Palatka & Anclote Railroad. A length of 10 miles from Palatka is ready for track-laying, and will be in operation at an early date.

Richmond, Ky.—Street Railroad.—The Richmond Street Railroad Co. will build the street railroad previously reported and is getting estimates as to cost. John Bennett is president.

Richmond, Va.—Railroad.—The Richmond & Chesapeake Railroad Co. has reorganized with C. W. Mackey as president. Assurance is given that the tunnel mentioned several weeks ago will be built soon. A large part of the stock has been purchased by a Northern syndicate, and an extension of time has been asked of the city council.

Salisbury, N. C.—Railroad.—Surveys are being made for a railroad from Salisbury to Monroe.

Salisbury, N. C.—Railroad.—The Yadkin Railroad Co. is making surveys for its road to be built from Salisbury to Norwood, 40 miles, previously mentioned, and construction will commence early in December. T. F. Klutz is president, and A. Mauny, Milledgeville, N. C., treasurer. Contract for the 40 miles has been awarded.

Sanford, N. C.—Railroad.—The stockholders of the Atlantic & North Carolina Railroad (office, Newberne, N. C.) will hold a meeting on November 21 to consider the extension of the road by the way of Sanford to Charlotte.

Sylacauga, Ala.—Railroad.—A railroad will be built to the marble quarries mentioned elsewhere in this issue as to be developed by Michael Muldoon, of Louisville, and others.

Tallahassee, Fla.—Street Railroad.—The Tallahassee Railroad Co., lately mentioned, has been incorporated by Charles H. Bennett, Richard L. Bennett and George W. Saxon. Capital stock is \$50,000.

Uvalde, Texas—Street Railroad.—The Uvalde Street Railroad Co., lately reported as incorporated, will probably begin work in a few weeks.

Washington, D. C.—Railroad.—It is reported that engineers are at work on the extension of the Washington & Potomac Railroad from Mechanicsville to Point Lookout, Md., a distance of 45 miles.

Waycross, Ga.—Street Railway.—John S. Sharp will build a street railway, and is negotiating to operate same by electric power. This is probably the same as the road to be built by the Waycross Street Railway Co., previously reported as chartered.

Whitesville, Ky.—Railroad.—A branch road will be built to the coal mines lately mentioned as to be opened by the Dean-Field Coal Co., of Owensboro.

Williamsport, Md.—Railroad.—The surveys for the proposed branch of the Western Maryland Railroad (office, Baltimore) from Williamsport to a connection with the Baltimore & Ohio Railroad at Cherry Run, W. Va., have been completed. It is reported that construction will soon commence.

Wilmington, N. C.—Railroad.—The Cape Fear & Cincinnati Railroad Co. will, it is stated, shortly let contract for grading 63 miles of its proposed road.

Yazoo City, Miss.—Railroad.—Engineer Ricio, of the Georgia Pacific Railroad Co. (office, Birmingham, Ala.), is preparing to make a survey of the proposed branch road from Itta Benna to Yazoo City, mentioned two weeks ago.

Yazoo City, Miss.—Railroad.—The citizens of Yazoo City are agitating the building of another railroad.

At the State fair in Birmingham, Ala., the Fort Payne Coal & Iron Co. was awarded the first premium for the largest and best display of mineral products, and the first premium for the largest and best display of clays, kaolin, sand and other material for the manufacture of glass, brick, terra-cotta and fire-brick, the premium being a diploma and \$40 in cash.

LUBRICATING OIL WORKS AT FORT PAYNE—BOSTON, MASS., Nov. 6, 1889.—It is proposed to start an oil works at Fort Payne, Ala., to make high-grade lubricating oil under the Davis patents. Chattanooga, it is reported, sends to the New York market yearly from 8,000 to 10,000 barrels of grease suitable for pressing into oils. Much of this grease is returned to the South in the form of oil. We propose to buy raw material on the ground and supply the South with lubricating oil.

THE DAVIS ANIMAL OIL CO.

## Iron and Steel Markets.

The position of the market for iron and steel in general is practically the same as outlined in the Bulletin at the close of last week. The output of the steel mills is sold ahead to such an extent that manufacturers are chary about quoting prices on stock for near future delivery, and the position of crude materials is such that even greater hesitancy is manifested in naming prices for distant futures. As for the crude materials, it can only be said that present conditions point to a further advance rather than to an early permanent reaction. Manufacturers quote upwards of \$33 at Eastern mill for steel rails, some naming \$34@35 as the lowest they would venture to offer at pending some indication of a downward turn in the market price of Bessemer pig iron and spiegeleisen. No sales have been reported at over \$32.50, however, and comparatively few at above \$31.50. Steel billets have been sold in quite large-sized lots at \$33 at Eastern Pennsylvania mills, and at proportionate prices in Pittsburgh. In the latter market \$48 has been paid for steel wire rods, while small lots of foreign rods were reported sold at as high as \$53 laid down in New York. Finished iron in the form of bars, sheets, etc., is very strong also, the output of the mills being sold considerably ahead. Track materials, such as spikes, fish-plates, bolts and nuts, are also in strong position, as is the market for iron and steel nails, and in general foundry work decided activity is the rule. The consumption of foundry and mill pig, as well as the crude materials employed in steel-making, as a matter of fact, continues to absorb the current output in a great measure, and furnace agents have in several instances withdrawn all quotations.

Bessemer pig iron is very difficult to obtain at less than \$20 at Eastern Pennsylvania furnace at the present time, although quite large quantities were sold last week at \$19.50 and under. In Pittsburgh and vicinity the cost is \$20@21. About 2,000 tons foreign 20 per cent. spiegeleisen were sold last week at \$33@33.50, f. o. b. cars at Jersey City, future delivery, but the lowest price named at the present time is \$33.50, and most sellers are asking \$34@34.50. Of 10 per cent. spiegeleisen sales have been made at \$28. Ferro-manganese 80 per cent. is held at \$90 for future shipment.

Foundry pig iron is in active demand for delivery next year at prices on the basis of \$18 for No. 1 X foundry, but furnace agents refuse to book orders or name any prices that would likely be considered reasonable. For what little supply there is to be had for early delivery high prices are exacted. To all accounts the present inside figures are \$18@18.50 for No. 1 X, \$17@17.50 for No. 2 X and \$16@16.50 for grey forge, according to brand and size of lot.—N. Y. Commercial Bulletin.

REFERRING to the general activity of all industrial enterprises at that town the Anniston Press says:

The cotton factory is crowded with orders and running under whip and spur to keep up with them.

The pipe works have all they can possibly do and their orders on hand and engaged will keep them running steadily through the winter and next summer and fall and winter again.

The new furnaces find a ready market for their pig, and both Woodstock furnaces are running steadily to keep abreast of the demand for the iron they make.

The Rolling Stock Works are stepping along merrily in response to orders, and gradually extending their space in anticipation of good things to come.

ELECTRIC PLANT AND ICE FACTORY—HARRODSBURG, KY., November 9, 1889.—We are now putting in electric-light plant and will put in ice plant in time for spring.

HARRODSBURG ELECTRIC LIGHT & POWER CO.

## High Grade Ores.

THE MANUFACTURERS' RECORD has, on several occasions, referred to the investigations that have been made by Col. O. C. King, of Morristown, Tenn., as to the extent and character of the mineral resources tributary to that town. Almost immediately adjacent to the town are very extensive iron properties which have been pronounced by experts to carry an abundance of unusually high grades ores. Col. King has just had a number of analyses of these ores made by the chemists of the Miller Manual Labor School, of Charlottesville, Va., and his report indicates that Morristown has ores of remarkable quality. THE MANUFACTURERS' RECORD has received a copy of this report and we give it in full:

MILLER MANUAL LABOR SCHOOL, CHEMICAL LABORATORY, November 4, 1889.)

The ores sent to this laboratory for analysis from Morristown, Tenn., have been examined with a view to determine their commercial value. I herewith submit you a report of the results:

I.—IRON ORES.					
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
Metallic iron.....	56.56	56.65	66.86	50.21	55.31
Phosphoric acid.....	.03	.08	.03	2.42	.03
Sulphur.....	trace	trace	....	....	....
Phosphorus.....	....	....	....	1.05	....
(Equivalent to phosphoric acid.)					

II.—MANGANESE ORES.

The quantity of oxygen which an ore of manganese is capable of yielding generally regulates its commercial value. I have therefore determined only the "manganese dioxide" contained in each specimen—

	No. 6.	No. 7.	No. 8.
Manganese dioxide.....	53.92	65.87	44.35

III.

No. 9. (Zinc Blende), common ore of zinc, is largely mixed with "calcite," (calcium carbonate). The metallic portion yields 62.56 per cent. zinc.

IV.

No. 10. (Galena), common ore of lead, very pure. Contains 85 per cent. (metallic) lead.

V.

No. 11 is pure metallic antimony, essentially 100 per cent. antimony.

These figures represent the per cent. of the constituents to which they are placed opposite.

Very respectfully submitted,  
ROBT. C. PRICE, Analyst.

It will be noticed that the iron ores run from 50.21 per cent. of metallic iron to 66.86, with no sulphur in three samples and all exceedingly low in phosphorus, while the manganese, zinc, galena and antimony ores are all likewise of high grade. Col. King appears to have secured mineral properties that should be opened up on a large scale in view of their importance to the development of the South.

NEW ENTERPRISES AT LOUISBURG—LOUISBURG, N. C., November 8, 1889.—There is talk of a cotton factory being built on the Jones water-power. Correspondence in regard to the machinery and building should be directed to Board of Trade. There is some talk of F. N. Egerton building a cotton-seed oil mill on the L. & F. Road near the depot. Egerton & Foard have just completed a steam cotton gin, &c. The Louisville Contracting Co. has about completed three tobacco prize houses, and expect to build some factories in a short time, for which machinery will be wanted. Egerton & Foard expect to start a brick plant soon, for which they will want machinery. The county commissioners will give out shortly a contract to have iron cages put in the jail. Louisville offers big inducements to all who want to commence any kind of small or large industry. Lots are desirable and cheap, and a cordial invitation is offered to all who will come and settle.

F. N. E.



## Southern Financial News.

## NEW BANKS.

Americus, Ga.—It is reported that another bank will be started; capital \$500,000.

Baltimore, Md.—The Washington Street M. P. Church will be converted into a savings bank.

Birmingham, Ala.—The Banker's Association of Alabama has been organized.

Blackville, S. C.—The Merchants & Planters' Bank of Blackville, lately reported as chartered, has elected L. T. Izlar president. Capital is \$25,000.

Brunswick, Ga.—The Merchants & Traders' Bank, lately mentioned, has been organized with \$100,000 capital. J. M. Madden has been elected president and J. H. Scarlett cashier.

Cedartown, Ga.—The Commercial Bank of Cedartown, recently reported as having organized, has elected R. A. Adams president and R. O. Pitts cashier. Capital stock is \$50,000.

Dade City, Fla.—The Bank of Pasco county, under the same management as the Bank of Tavares, opened for business November 1.

Dayton, Tenn.—The Rhea County Bank, recently reported as having been organized, has begun business.

Florence, Ala.—Boston capitalists will start a bank and trust company with a capital of \$300,000. This is possibly the same as the Florence Loan & Trust Co., recently noted as having organized.

Frostburg, Md.—The First National Bank of Frostburg has been incorporated with \$50,000 capital. L. M. Gorsuch is president and O. M. Haverly cashier.

Gadsden, Ala.—The Queen City Bank, lately reported as organized, has elected J. C. Street president and O. R. Goldman cashier. Capital is \$100,000.

Galveston, Texas.—The Texas Banking & Insurance Co., recently reported as intending to change to a national bank, has formed the Galveston National Bank; capital \$500,000. R. S. Willis is president and T. J. Grace cashier.

Greenwood, Miss.—The Bank of Greenwood has increased its capital from \$25,000 to \$50,000.

Lake Charles, La.—A. V. Thomas and V. A. Turney will start a bank; capital \$50,000, to be increased to \$100,000 by January 1.

Laredo, Texas.—The Rio Grande National Bank, recently mentioned as being organized, has opened for business with J. H. Hamilton as president and E. C. Reed cashier. Capital is \$100,000.

Louisville, Ky.—The Union National Bank of Louisville has been formally opened with Geo. P. Swearingen as president and E. H. Conn, cashier.

New Orleans, La.—The Guarantee Co. of New Orleans, Limited, has been incorporated by Charles F. Buck, Charles Carroll, Henry P. Dart and others.

Rockingham, N. C.—It is stated that a new bank is a certainty, and a site for the building is secured.

Smith's Grove, Ky.—Several capitalists intend to open a bank soon.

Starke, Fla.—J. M. Seidle will open a bank.

Terrell, Texas.—John C. Russell is endeavoring to unite with St. Louis capitalists in forming a bank with \$1,000,000 capital.

Tunnel Hill, Ga.—The name of the bank lately mentioned as being organized with \$50,000 capital is the Whitfield Bank.

Tuskegee, Ala.—W. P. Thompson & Son contemplate starting a bank.

Waycross, Ga.—Capt. C. C. Grace has been elected president and J. E. Wadley cashier of the South Georgia Bank of Waycross, mentioned some time ago. The bank will commence business as soon as its vaults and safes are ready.

West Point, Miss.—The West Point Bank has been incorporated with \$25,000 capital by J. H. L. Gerding and others.

Wheeling, W. Va.—It is stated that a bank and safe deposit company will be organized.

Winston, N. C.—C. W. Gilfillan, of Franklin, Pa., will possibly start a bank. Capital will probably not be less than \$150,000.

Morganton, N. C.—The county commissioners of Burke county will issue \$10,000 of bonds on January 1, 1890. Proposals of purchase of bonds should be marked proposals for the purchase of bonds and addressed to G. P. Erwin, chairman, Morganton.

Baltimore, Md.—The Old Town Fire Insurance Co. has declared a dividend of 2½ per cent. clear of all taxes, payable on December 2.

Greenwood, Miss.—The Bank of Greenwood has closed the first year of its existence by declaring a dividend of 12½ per cent.

New Orleans, La.—The Crescent City Railroad Co. has declared a dividend of \$1.00 per share, probably on and after November 10.

Wheeling, W. Va.—The Dollar Savings Bank has declared a dividend of 5 per cent. out of the business done in the last six months.

## Increasing Industrial Activity.

The past week, like several that have preceded it, has been one of much activity in the organization of very extensive enterprises. Florence, Ala., has led with very heavy investments by Philadelphia and New England capitalists, including a \$500,000 cotton mill, which will be the largest in the State; a furnace to cost \$150,000; a \$300,000 loan and banking company and over \$1,000,000 in cash, it is reported, has been invested in the stock and land of the Florence Cotton & Iron Co. and the Florence Railroad & Improvement Co. In Florida a contract has been made for constructing a 300-mile canal to furnish a water way nearly the entire length of the State. At Bessemer, Ala., two new furnaces to cost probably \$400,000 are to be built. At Brierfield, in the same State, iron works that have been idle for several years are to be reorganized with \$500,000 of bonds and \$700,000 of preferred stock, and operations resumed. A steel plate mill is to be built in West Virginia; a \$200,000 clothing factory in Baltimore and extensive fertilizer works at Norfolk, Va. Railroad construction is being pushed very vigorously in many parts of the South, and some important lines have been let to contract during the week. In all directions there is great activity in industrial and railroad enterprises, and the South was never before so busy as it is to-day.

## Manganese Ore.

GIBSLAND, LA., Nov. 8, 1889.

Editor *Manufacturers' Record*:

In your issue of November 2 I saw an article—"The Outlook for Manganese"—copied, with comments from you, which reminds me that there is near this place a large deposit of ore pronounced by several geologists to be manganese of very fine quality, and the ore is very rich; hence I thought it would be well enough for me to call the attention of foundry-men to the fact.

There is no lack of transportation facilities, our town being located at the crossing of the V., S. & P. division of the Queen & Crescent Route and the Louisiana, North & South Railway, about 41 miles east of Shreveport, in a very convenient position for transportation East, West, North and South.

There are other fine deposits of very rich iron ore; in fact, we are in the midst of an extensive field of iron ore, for the development of which no effort has ever been made. And this territory is covered by a dense growth of timber of the very best for charcoal, with indications of the presence of stone coal. We are also convenient to lime.

THOS. J. MANGHAM.

## P. J. GOODHART &amp; CO.

(Members of the New York Stock Exchange.)

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Bankers and Brokers,

84 BROADWAY,

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BALTIMORE, MD.

BROWN BROTHERS & CO.

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Baltimore, New York and Philadelphia

Stock Exchanges.

(Private wire between Baltimore, Boston,

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Interest allowed on deposits of Banks, Banks, Corporations and Individuals. Railroad, Municipal and other Loans Negotiated, and advances made on Grain, Cotton, Stocks and Bonds, and other approved collateral.

BUY AND SELL BILLS OF EXCHANGE

on Great Britain and Ireland, France, Germany, Holland, British West Indies and other foreign ports.

Issue Commercial and Travelers' Letters of Credit.

IN STERLING, available in any part of the

world; IN FRANCS, for use in Martinique and Guadeloupe; and IN DOLLARS, for use in this country, Canada, Mexico, the West Indies and South America.

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Drafts Collected in all parts of the World.

BROWN, SHIPLEY & CO., LONDON.

Financial Agents of the United States Government in England.

## Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.

BALTIMORE, NOV. 13, 1889.

	BID.	ASKED.
Virginia 3's, new.....	67½	68½
Virginia Consul Coupons, N. F.....	19½	21
Virginia 10-40 Coupons.....	23	27
N. Carolina 4's.....	96½	97
Norfolk Water 8's, C.....	126	126
Atlanta & Charlotte.....	89½	90
Ga. Car. & N. F.....	102½	103
Wil. & Wel. Gold, 7's.....	115½	116
Wil. & Wel. 5's.....	112½	113
Wil. Col. & Aug. 6's.....	118½	119
Atlanta & Char. 1st, 7's.....	119½	120
Atlanta & Char. Income 6's.....	104½	105
Col. & Green. 1st, 6's.....	105½	106
Col. & Green. 2d, 6's.....	83	84
Va. Midland, 1st, 6's.....	120	121
Va. Midland, 2d, 6's.....	116½	117
Va. Midland, 3d, 5-6's.....	117	118
Va. Midland 4th, 3-4-5.....	91½	92
Va. Midland, 5th, 5's.....	100½	101
Char., C. & Aug. 1st, 7's.....	110	111
Ga. Pacific 2d.....	81	81½
West Nor. Car. Cons'd 6's.....	96	101
Cape Fear and V. Valley 6's, A.....	106½	107
Cape Fear & V. Valley 6's, B.....	104	104½

## Foreign Exchange Quotations.

ALEXANDER BROWN & SONS.

BALTIMORE, NOV. 13, 1889.

	SELLING.	COMMERCIAL.
60 days.....	481½	479½
3 days.....	485½	479½
France—		
60 days.....	521½	525
3 days.....	518½	522½
Germany—		
60 days.....	94½	93½
3 days.....	95½	94½
Guilthers—		
60 days.....	40½	39½
3 days.....	40½	39½

CHAS. ROBERTS, President.  
B. T. KIMBROUGH, Vice-President.

## Merchants &amp; Farmers' Bank, Oxford, MISS.

Subscribed Capital, \$100,000.

Paid-up Capital, \$50,000.

CORRESPONDENTS: New York Western National Bank; New Orleans State National Bank.

SPECIAL ATTENTION PAID TO COLLECTIONS.

WILSON, COLSTON & CO.  
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216 E. Baltimore Street, Baltimore, Md.

Investment and Miscellaneous Securities a specialty, and large lines handled. Exceptional facilities for dealings in all classes of Southern Bonds. Loans on Collateral Securities negotiated. Quotations and information furnished on application, and correspondence invited.

J. WM. MIDDENDORF.

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Kansas City Property Exclusively.

## 8% REAL ESTATE BONDS. 8%

Profit Participating. Interest Guaranteed. April and October Coupons payable in Boston.

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25% Special Deposit Additional Security

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## 6% Improved Business Property Bonds. 6%

Office and Banking Building, with 50 per cent. stock bonus.

Other Choice Investments yielding 6 per cent. and Upwards.

Send for monthly circular, pamphlets, references and papers.

## WINNER INVESTMENT CO.

Capital \$500,000.

## WILLIAM H. PARMENTER.

GENERAL AGENT,

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JOHN L. WILLIAMS & SON,  
BANKERS,

RICHMOND, VA.

Our MANUAL OF INVESTMENTS, the largest publication of the kind published by any banking house in the United States, may be had upon application by parties interested.

## Richmond Stock Exchange Quotations.

Reported by JOHN L. WILLIAMS & SON, Bankers, Richmond.

RICHMOND, VA., NOV. 12, 1889.

	BID.	ASKED.
North Carolina 4's, 1910.....	96	97½
North Carolina 6's, 1919.....	125	126
Virginia New 3's, 1912.....	67½	68½
Lynchburg, Va., 3's, 1915.....	103½	104
Petersburg, Va., 3's, 1915.....	103½	104
Norfolk, Va., 3's, 1915.....	104	105
Richmond, Va., 5's, 1912.....	112	113
Atlanta & Charlotte Ry., 1st 7's, 1907.....	119	121
Atlanta & Charlotte G'd 6's, 1900.....	104½	105½
Char., Col. & Aug. R. R. Gen. 6's, 1902.....	107½	109
Georgia Pacific Ry., 1st 6's, 1902.....	113½	114½
Georgia Pacific 2d 5's, 1903.....	81	82
Ga. Pacific Income, 3's.....	30	31
Petersburg Railroad Class A 5's, 1906.....	104	106
Petersburg Railroad Class B 6's, 1906.....	104½	105
Rich. & Danville R. R. Gold 6's, 1915.....	118	119
West. N. Car. R. R. Gen. 6's, 1914.....	119	121
Northwestern N. Car. R. R. 1st 6's.....	101	102
Atlanta & Charlotte R. R. Stock.....	89	90
North Carolina Railroad Stock.....	104	107
R. F. & Pot. R. R. Div'd Obligations.....	111	112½
Virginia Midland Railway Stock.....	37	40
Sloss Iron & Steel Co. Stock.....	51	55
Sloss Iron & Steel Co. 1st 6's.....	93	95
Sloss Iron & Steel Co. 2d 6's.....	70	73

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Opp. Lowell Depot, BOSTON.

W. A. WEST, Cashier.  
H. P. BRANHAM, Assistant Cashier.

## Merchants &amp; Farmers' Bank, Oxford, MISS.

Subscribed Capital, \$100,000.

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# CONSTRUCTION DEPARTMENT.

**WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.**

\*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

## ALABAMA.

**Anniston—Gas Works.**—The Anniston Gas & Light Co. is laying 1½ miles of 4-inch main, and will put in a new bench of five retorts and change a bench of three to five.

**Anniston—Cotton Factory.**—Sidebottom & Walton, of Philadelphia, Pa., are investigating with a view to locating a cotton goods factory in Anniston.

**Ashville—Grist Mill and Gin.**—Gilbert & Hodges contemplate adding to their saw mill, some time next year, a grist mill and cotton gin.

**Bessemer—Iron Furnaces and Coke Ovens.**—The De Bardeleben Coal & Iron Co. has selected a site for its two additional 125-ton coke iron furnaces mentioned in last issue.

**Birmingham—Machine Shop.**—The Birmingham, Bessemer & Powderly Dummy Line Co. has let contract to Peter Taylor for building its machine shop and roundhouse at Trevelick, near Birmingham, previously reported. Shop is to be 70x90 feet.

**Birmingham—Coupling Stick Factory.**—F. W. Beall, previously reported as organizing a stock company to manufacture his patent car-coupling stick, has organized the Beall Manufacturing Co. with H. F. De Bardeleben as president; J. H. Garner, vice-president, and J. B. Cobbs, secretary and treasurer. The capital stock is \$100,000.

**Birmingham—Scale Factory.**—The Herndon Automatic Scale Co. is being organized for the manufacture of scales. The capital stock will be \$50,000.

**Blount Springs.**—The Blount Springs Co. will meet December 7 to consider the issuance of \$50,000 of bonds.

**Brierfield—Iron Furnace, Rolling Mill, &c.**—Thomas F. Kurtz and Thomas E. Peters, trustees for the bondholders of the Brierfield Coal & Iron Co., previously reported as purchasing the company's property, have reorganized the company. \$500,000 of bonds and \$700,000 of preferred stock will be issued, and the works of the company, consisting of a coke iron furnace, rolling mill and nail factory, will be put in operation.

**Decatur—Iron Furnace.**—E. C. Gordon, lately reported as leasing the charcoal iron furnace owned by the Decatur Land, Improvement & Furnace Co. and to repair and put it in operation, is organizing a stock company to operate same.

**Fayette County—Coal Mines.**—It is reported that an English syndicate has recently purchased coal lands in Fayette, Walker and Tuscaloosa counties, and will develop.

**Florence—Furniture and Implement Factory.**—Rockford (Ill.) parties are prospecting with a view to locating a furniture and agricultural implement factory in Florence. Charles Tatum, secretary of the Florence Investment Co., can give information.

**Florence—Cotton Mills.**—One of the new industries previously reported as to be established, and about which no particulars were given, is a cotton mill to be built by the Florence Cotton Mills Co., organized by Boston capitalists with a capital stock of \$300,000. A site has been secured and a building 600x100 feet will be erected. J. Coons, of the Huntsville Mills, has been appointed superintendent and authorized to purchase machinery. Major J. H. Field or Mr.

Coons can give information. It is stated that another cotton mill will be built as soon as this one is put in operation.

**Greenville—Electric-light Plant.**—The erection of an electric-light plant is being agitated.

**Helena—Rolling Mill.**—A stock company has purchased the rolling mill of the Central Iron Works, and will improve and put it in operation, as lately mentioned. Ten new double-heating furnaces will be erected.

**Helena—Coal and Iron Mines.**—The De Bardeleben Coal & Iron Co., of Bessemer, lately reported as purchasing the properties of the Eureka Co., of Oxmoor, will continue the development of the Eureka coal and iron mines near Helena, probably on a larger scale.

**Horse Creek—Coke Ovens.**—The Horse Creek Coal & Coke Co., lately mentioned as opening new coal mine, will shortly build 50 coke ovens.

**Leeds—Stone Quarry.**—Charles F. Collum and J. N. Freeman, of Birmingham, will probably develop a stone quarry.

**Leeds—Bridges.**—Two new iron bridges will be built across the Little Cahaba river. P. W. East & Co. have the contracts.

**Mobile.**—The Florida Lumber Co. will meet November 25 to consider the issuing of bonds.

**Oxford—Water Works.**—R. P. Thomason, mayor, states that contract for the water works previously mentioned will be let soon.

**Selma—Cotton Mill.**—The Mathews Cotton Mills Co. will meet December 3 to consider the issuance of bonds not to exceed in amount \$75,000.

**Sylacauga—Marble Quarries.**—E. W. Linn, Enoch Ensley and Michael Muldoon, of Louisville, Ky., and others will develop marble quarries near Sylacauga. Steam drills will be used. Mr. Muldoon can give particulars.

## ARKANSAS.

**Bentonville—Creamery.**—It is stated that a creamery to cost \$6,000 will be erected.

**Camden—Car Shops.**—Efforts are being made to have the St. Louis, Arkansas & Texas Railroad Co. (office, St. Louis, Mo.) erect extensive car shops in Camden.

**Camden—Compress.**—The Camden Compress Co. is repairing its cotton compress.

**Cauthron—Coal Mine.**—The Poteau Mining Co. is the name of the company lately reported as opening a coal mine near Cauthron.

**Central—Grist Mill and Gin.**—C. W. Minnre will rebuild his grist mill and cotton gin lately mentioned as burned.

**Huntington—Cotton Mill.**—A stock company will probably be organized to build a cotton mill. The Kansas & Texas Coal Co. can give information.

**Huntington—Artesian Wells, &c.**—The Kansas & Texas Coal Co. is sinking an artesian well and has erected a coal chute and made other improvements at its slope No. 21.

**Jonesboro—Flour Mill.**—G. W. Culberson & Co. will erect a flour mill.

**Little Rock—Turnpike.**—E. N. Weigel has received contract to build a turnpike at \$4,000 per mile.

**Little Rock—Water Works.**—The American Water Works & Guarantee Co. is changing the location of its stand-pipe.

**Little Rock—Electric-light Plant.**—The Little Rock Electric Light Co. has enlarged its plant.

**Little Rock—Granite Quarries.**—Zeb Ward, previously reported as purchasing 160 acres of granite lands near Little Rock, will develop at once, and has secured machinery.

**Newport—Timber Land.**—E. M. Stump, of Kansas City, Mo., has purchased 1,400 acres of oak timber land for staves from J. S. Williams.

**Rogers—Lake.**—It is reported that great improvements will be made at the Electric Springs, including the construction of an artificial lake to cover about 50 acres.

**Van Buren—Machine Shops.**—The Missouri Pacific Railway Co. (office, St. Louis, Mo.) will, it is reported, build extensive machine shops and a roundhouse.

**Yellville—Marble Quarries.**—L. Matlock will develop marble quarries on James creek.

## FLORIDA.

**Eau Gallie—Marine Railway.**—The Indian River Steamboat Co. will build marine ways to cost \$4,000.

**Fernandina—Saw Mill.**—Charles Easton, of Southsea, England, is investigating the timber lands of S. A. Swann with a view to purchasing for an English syndicate. It is stated that if a sale is made several saw mills will be erected.

**Fernandina—Saw Mill.**—It is reported that a large saw mill for sawing hard woods will be erected by Northern parties. W. B. C. Duryee can give information.

**Fernandina—Stave Mill.**—A stave mill is reported as to be erected by St. Louis (Mo.) parties.

**Key West—Cigar Factory.**—Del Pino Bros., whose cigar factory was reported in last issue as burned, have secured two large factories and will soon resume operations. The loss was \$120,000.

**Key West—Slaughter-house.**—A slaughter-house is to be erected. The mayor can give particulars.

**Lake City—Laundry.**—F. L. Kern contemplates starting the steam laundry mentioned in last issue.

**Lake City.**—The Lake City Improvement Association has been incorporated with C. C. Banfill, president; J. E. Young, vice-president, and A. B. Hart, secretary. The capital stock is \$100,000.

**Leesburg—Canal.**—The Ocklawaha Canal & Drainage Co. has been incorporated by T. C. Lanier, J. R. Cunningham, O. P. Rooks and others to construct a canal from Silver Spring run, in Marion county, to Lake Panasoffkee, in Sumter county. The capital stock is to be \$100,000.

**Middleburg—Saw Mill.**—A. H. Moss will probably rebuild his saw mill mentioned in last issue as burned.

**Middleburg—Brick Works.**—A new brick machine has been put in the Green Cove Brick Works and a 75 horse-power boiler and engine will be added to operate it.

**Ocala—Artesian Well.**—Edward F. Joyce, of St. Augustine, has contracted with the Jeter & Boardman Gas & Water Association, of Macon, Ga., to sink a 12-inch artesian well for the Ocala water works.

**Starke—Canning Factory.**—A stock company is being organized to erect a canning factory.

**St. Augustine—Canal.**—The Florida East Coast Canal & Transportation Co., lately mentioned as making arrangements for pushing the work on its canal, has let contract to Ritten, Moore & Co., of Mobile, Ala., to complete the cutting of the canal to Lake Worth within 2½ years. It is to be built from St. Augustine to Biscayne bay, 300 miles.

**Tallahassee.**—The Newport Springs & Land Improvement Co. has been incorporated by Charles F. Wicker, of Chicago, Ill.; Nathan H. Briggs, of Battle Creek, Mich., and Edward Lewis, of Tallahassee, to deal in real estate. The authorized capital stock is \$100,000.

## GEORGIA.

**Albany—Fertilizer Factory.**—The Albany Fertilizer Co., lately reported as to enlarge its factory at cost of \$30,000, will add an acid chamber and storage room 40x80 feet, and put in phosphate mills, elevators, &c.

**Athens.**—A land company is to be organized to develop the Lilly property, containing 1,000 acres.

**Athens—Publishing.**—Stone & Christy, proprietors of the Chronicle, and T. L. Gantt, proprietor of the Banner, are organizing a stock company to consolidate the two papers.

**Atlanta—Sprinkling Apparatus.**—The Fulton Bag & Cotton Mills will put in sprinkling apparatus, and have let contract to the Georgia Steam & Gas Pipe Co., of Columbus.

**Brunswick—Saw Mill.**—L. J. Hand will probably purchase 8,439 acres of timber land owned by Knabe & Scott, of Birmingham, Ala. If the purchase is made he will move his saw mill from Jemison, Ala., to near Brunswick.

**Brunswick—Fertilizer Factory.**—J. W. Wainwright, of Chicago, Ill., contemplates establishing a large fertilizer factory.

**Brunswick—Manufacturing and Improvement Company.**—The South Brunswick Terminal Compress & Manufacturing Co. has been incorporated by John I. Holly and E. P. Kennard, of New York city; H. L. Wayne, J. W. Bennet and C. Symmes for the building and operating of cotton compresses, wharves, etc., and with the privilege of engaging in manufacturing of various kinds. The capital stock is to be \$1,000,000.

**Canton—Barrel Factory.**—The barrel factory lately reported as to be enlarged will be operated by Calvin & Carrigan.

**Cedartown—Cheese Factory.**—B. B. Herrick, of Wellington, Ohio, will probably establish a cheese factory if given sufficient inducements.

**Cordele—Machine Shops.**—C. W. Hicks and Henry Holmes have formed a partnership to erect machine shops.

**Dahlonega—Gold Mines.**—A Boston syndicate is reported as negotiating to purchase the Hand gold mining property. It is stated that the price is \$1,500,000.

**Macon—Chopper Factory.**—The stock company mentioned last week as being organized by J. B. Ammons to manufacture his patent cotton chopper will have a capital stock of \$100,000.

**Macon—Distillery.**—A. & N. M. Block and A. Ullman will erect a whiskey distillery to cost \$10,000 at Vineville. The capacity will be 3 barrels per day at first, and will be increased later.

**Macon—Oil Mill, Ice Factory, &c.**—The Planters' Oil, Guano & Ice Co., previously reported as organized to erect a cotton-seed oil mill, fertilizer factory and ice factory, has increased its capital stock. As soon as the oil mill and fertilizer factory are completed, work on the ice factory will begin.

**Rome—Iron Furnace and Car and Car-wheel Works.**—C. A. Lyerly, Edward Watkins, L. S. Colyar and others, of Chattanooga, Tenn., are the parties lately mentioned as making a proposition to build a charcoal iron furnace. They also propose to erect car and car-wheel works. Their proposition to build a furnace has been accepted.

**Savannah—Land.**—The Southern Land Co. has been incorporated by B. H. Levy, J. L. Whitley, E. J. Kennedy and others to deal in real estate. The capital stock is \$5,000.

**Tunnel Hill—Iron Furnace.**—The Chattanooga Mining & Manufacturing Co. has increased its capital stock to \$500,000 to build the iron furnace lately mentioned. Davis & Duran have contract for the foundations.

**Tunnel Hill—Saw Mill.**—The Chattanooga Mining & Manufacturing Co. has erected a saw mill of 10 M feet daily capacity.

**Washington—Oil Mill.**—The Excelsior Manufacturing Co. has been chartered to build the cotton-seed oil mill lately mentioned.

**Waynesboro—Carriage Factory.**—Mobley & Lasseter have started a carriage factory.\*

**West Point—Oil Mill.**—The Planters' Oil & Manufacturing Co. will put in a new 40 horse-power engine.

## KENTUCKY.

**Ashland—Electric-light Plant.**—The Ashland Electric Light Co. contemplates putting in an incandescent light dynamo.

**Barbourville—Bridge.**—A \$15,000 bridge will be built across the Cumberland river. The mayor can give particulars.

**Covington—Machine Works.**—The Frisbie Engine & Machine Co., lately mentioned as incorporated, will operate machine shops at Cincinnati, Ohio.

**Ferguson—Saw and Grist Mill.**—John I. Ferguson has rebuilt his saw and grist mill recently burned.

**Fordsville—Mining.**—Louisville and Owensboro capitalists have been investigating mineral lands, it is stated, with a view to developing.

**Georgetown—Twine Factory.**—The Blue Grass Cordage Co., previously reported as organized to manufacture hemp twine, has let contract for the erection of factory building to Lucas & Brooks.

**Grand Rivers—Factories.**—It is reported that over \$500,000 will be invested in factories by the Grand Rivers Co., reported in last issue as organized.

**Harrodsburg—Electric-light Plant.**—The Harrodsburg Electric Light & Power Co., lately mentioned, has let contract for its plant to the Fort Wayne Jenney Electric Light Co., of Fort Wayne, Ind.

**Hawesville—Gas Well.**—A gas well is being sunk.

**Henderson—Factory.**—W. G. Head is erecting a factory on Third street.

**Henderson—Natural Gas.**—The Henderson County Natural Gas, Mining & Manufacturing Co., lately reported as incorporated, expect to sink wells at once.

**Lexington—Publishing.**—J. O. Hodges and H. T. Groom have commenced the publication of the Real Estate Register and Trades Journal.

**Louisville—Asphalt Mines.**—The Grayson County Asphalt Mining & Contract Co. has been incorporated by O. C. Richardson, J. M. Hardin, J. S. Cain and others to develop asphalt lands. The capital stock is to be \$500,000.

**Louisville—Wheel Factory.**—Jacob Muller, of Millersburg, Pa., is prospecting with a view to moving his wheel factory to Louisville.

**Magnolia—Flouring Mill.**—Walter Hurst is thinking of building a flour mill if he can interest some one in the project.

**Newport—Sand Mining.**—The Kentucky Sand, Loam & Earth Co. has been incorporated by J. F. Dye, W. H. Harton and John Eyer to develop sand banks. The capital stock authorized is \$30,000.

**Whitesville—Distillery.**—George Capp is erecting a 10-bbl. distillery near Whitesville.

## LOUISIANA.

**Baton Rouge—Levee Work.**—The State Board of Engineers will receive proposals for constructing levees at Longwood and Pecan Grove.

**Lake Charles—Water Works.**—The Calcasieu Artesian Well & Oil Co. has obtained permission to lay water mains through the town.



**New Iberia—Electric-light Plant.**—It is stated that the electric-light plant lately mentioned will be added to the saw mill of Gall & Pharr.

**New Orleans—Coffin Factory.**—The Orleans Manufacturing Co., previously reported as to enlarge its coffin factory has increased its capital stock from \$40,000 to \$60,000.

**New Orleans—Phonograph.**—Robinson & Underwood will probably organize a company to operate the Edison phonographs in Louisiana and Mississippi.

**New Orleans—Candy Factory.**—P. W. Dielman & Co. will put an engine and boiler in their candy factory.

**New Orleans—Vinegar Factory.**—H. Garde will erect a vinegar factory.

**Pattersonville—Planing Mill.**—N. B. Trelue & Co., Peter Norman and Pharr & Williams have purchased the Thornton planing mill and organized as the Pattersonville Sash, Door & Blind Factory, Limited. Mr. Norman is president.

**Shreveport—Fertilizer Factory.**—It is reported that a company has been organized to manufacture fertilizers.

**Shreveport—Cotton Mill.**—A. Prendergast, of Findlay, Ohio, has made a proposition to build a cotton mill.\*

#### MARYLAND.

**Baltimore—Clothing Factory.**—Strouse & Bros. will erect a clothing factory, six stories, 70x200 feet, to cost about \$150,000, including site. It is to be lit by electricity from a dynamo to be put in, and will have three elevators. Charles L. Carson prepared plans. Charles Markland has the contract.

**Baltimore—Factory.**—The Acme Manufacturing Co. has been incorporated by R. J. C. Jones, E. W. Read, C. W. S. Banks and others.

**Baltimore—Land.**—It is reported that New York capitalists are endeavoring to purchase 50 acres of land in North Baltimore belonging to Walter B. Brooks and Hugh L. Bond, with the intention of expending about \$2,000,000 in laying off in residence lots and improvements.

**Cumberland—Cement Mill.**—The Cumberland Cement Co. is building two new dry-kilns, increasing its capacity 100 barrels.

**Knoxville—Canning Factory.**—The erection of a canning factory is being discussed.

**Sparrow's Point—Pumping Station.**—The Pennsylvania Steel Co., which is building furnaces, steel works, etc., is erecting a pumping station. The company is negotiating to purchase 500 acres of land adjoining its present property, which consists of about 1,200 acres.

**Washington, D. C.—Projectile Factory.**—The Roberts Projectile & Manufacturing Co. has been incorporated in Virginia by R. R. Roberts, president; M. V. Barley, vice-president, and K. S. Murchison, secretary, to manufacture the Roberts patent projectile. The authorized capital stock is \$1,000,000.

**Washington, D. C.—Gun Foundry.**—Congress will probably make an appropriation at its next session to enlarge the gun foundry at the Washington navy-yard. The Secretary of Navy can give particulars when definitely decided.

#### MISSISSIPPI.

**Friar's Point—Oil Mill.**—The stock company to build the oil mill lately mentioned will not be organized at present.

**Ripley—Wagon and Furniture Factory.**—It is reported that a large wagon and furniture factory will be built.

**Vicksburg—T. M. Smedes, E. C. Carroll, G. S. Irving and others have purchased the Warren Oil Mills and incorporated the Hill City Oil Mills. The plant will be repaired and put in operation. Capital stock is \$50,000.**

**West Point—Gin Factory.**—B. A. Smith, of Rutherford, Tenn., is the party lately mentioned as contemplating moving a cotton gin factory to West Point.

**Yazoo City—Saw mill.**—W. R. Coleman contemplates erecting a saw mill.\*

#### NORTH CAROLINA.

**Burgaw—Land.**—The Pender & Onslow Land & Improvement Co. is negotiating with the State board of education to purchase land in Pender county.

**Concord—Iron Works.**—C. W. Swink, A. B. Young, S. J. Beatty and others have organized a \$12,000 stock company to manufacture from wood and iron.

**Fayetteville—Silk Factory.**—An effort is being made to establish a silk factory.

**Goldsboro—Fire-alarm System.**—The city wants to put in a fire-alarm system, either bells or an electrical apparatus. Address Nathan O. Berry.

**Greensboro—Paper Box Factory.**—A paper box factory is projected.

**Greensboro—Cotton Mill.**—It is reported that O. S. Causey, of High Point, will start a cotton mill.

**Hickory—Wood-working Factory.**—The Hickory Manufacturing Co. is building a brick addition to its wood-working factory.

**Hickory—Wood Factory.**—The Catawba Wood Works has been organized by Ohio parties for the manufacture of ship and insulator pins.

**Hickory—Saw and Planing Mill.**—Kennler & Lake, of New York city, will erect a saw and planing mill.

**High Point—Furniture Factory.**—The furniture factory mentioned in last issue as being erected by O. C. Wysong will be operated by Johnson & Co.\*

**High Point—Cotton Mill.**—New machinery for the manufacture of fancy cotton cassimeres is being put in the Empire Plaid Mills.

**Kinston—Handle and Spoke Factory.**—Clay Parrott is reported as contemplating the erection of a handle and spoke factory.

**Kinston—Soap Factory.**—A soap factory is projected.

**Louisburg—Cotton Gin.**—Egerton & Ford have erected a cotton gin.

**Louisburg—Brick-yard.**—Egerton & Ford contemplate starting a brick-yard.\*

**Louisburg—Cotton Factory.**—The erection of a cotton factory on the Jones water-power is talked of. The Board of Trade can give particulars if anything is done.

**Louisburg—Prize Factories.**—The Louisburg Contracting Co. is building three tobacco prize factories and expect to build others.

**Louisburg—Oil Mill.**—F. N. Egerton is considering the erection of a cotton-seed oil mill.

**Morganton—Electric-light Plant.**—The town is considering putting in an electric-light plant and is getting estimates as to cost, etc. N. B. Dilworth can give information.\*

**Murphy—Machine Shops.**—It is rumored that the Richmond & Danville Railroad Co. (office, Richmond, Va.) has purchased the Valentine property as a site for machine shops.

**Raleigh—Cotton Mill.**—The Raleigh Cotton Mills, lately reported as letting contract for its building, has commissioned Julius Lewis and J. S. Wynne to go North and purchase the machinery.

**Raleigh—Plumbago Mines.**—George S. Emrick, of Philadelphia, Pa., has purchased plumbago mines near Raleigh from Joseph Blake and will develop them.

**Salem Chapel—Flour Mill.**—Stafford Bros. will build a flour mill at once.\*

**Wilmington—Water Works.**—It is probable that the Clarendon Water Works Co. will either change the location of its stand-pipe or build an additional one.

#### SOUTH CAROLINA.

**Anderson—Shoe Factory and Tannery.**—The name of the \$50,000 stock company mentioned in last issue as to be incorporated by C. C. Langston, T. S. Crayton, W. F. Cox and others to erect a shoe factory and tannery is the Anderson Tannery & Shoe Factory Co.

**Berkeley—Canning Factory.**—The Berkeley Canning Co. has been organized.

**Dillon—Cotton and Fertilizer Factories.**—It is reported that the Dillon Cotton Seed Oil Co. contemplates adding fertilizer machinery and erecting a cotton factory.

**Florence—Electric-light Plant.**—W. R. Barringer, mentioned in last issue as organizing a company to erect an electric-light plant, has failed to secure a franchise and will not erect the plant for the present.

**Greenville—Bridge.**—C. C. Jones will receive proposals until November 20 for building an iron bridge over the Reedy river at Main street.

**Pendleton—Creamery.**—J. C. Stribling has erected a creamery on his Hampshire farm, near Pendleton.

#### TENNESSEE.

**Dolivar—Stave Factory.**—Gardner Bros. contemplate erecting a stave factory.

**Buckeye—Coal Mines and Coke Ovens.**—The Pioneer Coal & Coke Co. is developing coal lands. It has nearly completed 50 coke ovens.

**Chattanooga—Pumping Station.**—The pumping station lately mentioned as to be erected at the foot of Lookout mountain by the Chattanooga Water Co. will cost \$50,000.

**Chattanooga—Bridge.**—The Chattanooga Land, Coal, Iron & Railway Co. will probably soon commence the construction of a railroad bridge across the Tennessee river, over which the Chattanooga & Western Railroad will enter the city.

**Columbia.**—The Columbia Real Estate & Investment Co. has been incorporated with E. W. Gamble, president; J. T. Craigs, vice-president, and W. J. Hine, secretary, to deal in real estate.

**Columbia—Iron Furnace and Mines.**—The name of the company mentioned in last issue as commencing work on a charcoal iron furnace, 18 miles south of Columbia, is the Rockdale Mining & Manufacturing Co., of Nashville. The company owns 6,000 acres of heavily timbered lands. The furnace and the opening of iron mines will cost \$100,000. Capacity will be 45 tons daily.

**Harriman—New Town, Water Works, &c.**—The East Tennessee Land Co., of 96 Broadway, New York, N. Y., lately reported as organized to build a town to be called Harriman, will lay off lots,

grade streets and build sewers. It is said to have organized three mining companies and companies to erect an electric-light plant, water works and gas works; also a lumber company with a capital stock of \$150,000, and a brick manufacturing company.

**Huntingdon—Saw Mill.**—G. T. Bullock will probably rebuild his saw mill reported in this issue as burned.

**Iron City—Iron Mines.**—The Shoal Creek Iron Co. will, it is reported, develop the Vanleer iron ore lands.

**Jackson—Cotton Mill.**—A stock company is being organized to build a cotton mill.

**Loudon—Foundry and Machine Shop.**—J. A. Ferguson and Thomas Robinson will erect a foundry and machine shop. Machinery is to be purchased at once.

**Memphis—Wood-working Factory.**—Gibson & Hunt, of Winchester, have made a proposition to move their wood-working factory to Memphis.

**Morristown—Coffin Factory.**—Samuel Sullenbarger has started a coffin factory.

**Neely—Grist Mill and Gin.**—It is reported that a grist mill and cotton gin will be built.

**Sherman Heights—Boulevard.**—A government boulevard is reported as to be constructed from Sherman Heights to the Chickamauga battlefield at a cost of \$50,000.

**Sherman Heights—Limestone Quarry.**—Macarmy & Igo have commenced developing a limestone quarry. They have contract to furnish the Citico Furnace Co., of Chattanooga.

#### TEXAS.

**Beaumont—Iron Works.**—Greeves & Bisland, of Orange, have purchased the Beaumont Iron Works and will put in new machinery.

**Brenham—Oil Mill.**—It is rumored that another cotton-seed oil mill will be built.

**Brenham—Compress.**—The company that owns the old cotton compress on the Texas Central Railroad near Brenham talks of selling it and purchasing a new hydraulic press.

**Clarksville—Canning Factory.**—H. B. Wright, M. L. Sims, J. H. Burks and others have organized a stock company to erect a canning factory. The capacity will be from 6,000 to 10,000 cans daily. The building will be 50x100 feet. About 150 hands will be employed. Mr. Wright is president.\*

**Coleman—Coal Mine.**—The Silver Moon Coal & Mining Co. has struck a 3-foot vein of bituminous coal 9 miles north of Coleman, and will, it is stated, erect machinery and develop.

**Corpus Christi.**—The Corpus Christi Real Estate Co. has been incorporated by Elihu H. Ropes, of New York city, and Messrs. Miller and Mitchell, of Corpus Christi. The authorized capital stock is \$10,000,000.

**Cuero—Oil Mill.**—The erection of a cotton-seed oil mill is talked of.

**Dallas—Levees.**—The name of the company reported in last issue as organized to reclaim 100,000 acres of land near Dallas is the Trinity Valley Improvement Co. It proposes to straighten the Trinity river and build levees at a cost of \$1,500,000.

**Denison—Land.**—Eastern capitalists have purchased land at East Denison to the amount of \$50,000, and will, it is stated, spend \$20,000 in improving it. Edward Perry can give information.

**Denison—Machine Shops.**—It is reported that the Houston & Texas Central Railroad Co. (office, Houston) will build machine shops.

**Eastland—Coal Mines.**—Mr. Wheeler will probably develop coal mines near Eastland.

**Fort Worth—Woolen Mill.**—The secretary of the Board of Trade has received a proposition to build a woolen mill. It is being considered.

**Fort Worth—Collar, Bagging and Twine Factory.**—The Moss Collar, Bagging and Cordage Co. has been incorporated with a capital stock of \$100,000 to manufacture moss collars and jute bagging twine. Machinery is being purchased; 110 hands will be employed.

**Galveston—Electric Works.**—W. F. Ladd will probably endeavor to organize a company to manufacture a patent electric battery for lighting purposes.

**Greenville—Ice Factory.**—A 10-ton ice factory is reported to be built. The Greenville Water & Electric Light Co. can probably give information.

**Hearne—Gin.**—L. W. Carr, executor of the B. W. Beckham estate, will rebuild the cotton gin mentioned in last issue as burned next spring.\*

**Hillsboro—Flour Mill.**—A \$20,000 stock company has been organized to build the roller flour mill previously reported.

**Houston—Stove Factory.**—James A. Cushman, lately mentioned as enlarging his machine works, is also adding the manufacture of stoves.

**Paris—Publishing.**—The Times Publishing Co. has been incorporated with a capital stock of \$5,000.

#### VIRGINIA.

**Balcony Falls—Cement Works.**—It is possible that the cement works lately mentioned as to be established at Glasgow will be removed from Balcony Falls to that place by Locker & Co.

**Buena Vista—Steel Plant.**—It is reported that negotiations are now pending for the establishment of a large steel plant. The Buena Vista Co. can give information.

**Clifton Forge—Tannery.**—The Iron Gate Tanning Co. has been incorporated by James Crawford, S. C. McNally and others, of Alleghany City, Pa.; Frederick Colburn, Jacob Yost and others to erect a tannery at Iron Gate. The capital stock is \$50,000.

**Lynchburg.**—The Blue Ridge Dyspepsia Water Co. has been incorporated with P. F. Brown, president; J. T. Williams, vice-president, and J. W. Faulkner, secretary, to put on the market a medicinal water. The capital stock is \$5,000.

**Norfolk—Wharves.**—The English syndicate lately mentioned as to erect chemical and fertilizer works is preparing to build wharves and docks. Commodore A. E. Bateman is interested.

**Richmond—Motor Works.**—The Wright Motor Co. has been incorporated with J. S. Parrish, president; Aaron Hortor, vice-president, and B. F. Wright, general manager, to manufacture motors. The capital stock is to be not less than \$50,000 nor more than \$1,000,000. It contemplates building works for manufacturing motors soon.\*

**Richmond—Land.**—T. A. Lamb has purchased a large tract of land adjoining Barton Heights, a suburb of Richmond, and will lay off in lots.

**Roanoke—The Roanoke Gas & Water Co.** has let contract to the Glamorgan Co., of Lynchburg, to furnish the pipe for the extension of its mains, lately mentioned. About 4½ miles of pipe will be required.

**Roanoke—Phonograph.**—The Old Dominion Phonograph Co. has been chartered with J. H. Gilora, of Richmond, as president; L. L. Powell, secretary, and J. B. Levy, treasurer.

**Roanoke—Land.**—The North Roanoke Land Co. has been organized with S. W. Jamison, president, and H. M. Darnall, secretary and treasurer. It has purchased 72 acres of land, and will lay off in residence sites. The capital stock is to be not less than \$60,000.

**Salem.**—George Allen, F. C. Burdette, J. H. Palmer and others are organizing a land, loan and trust company.

#### WEST VIRGINIA.

**Benwood—Machine Shops.**—It is rumored that the Baltimore & Ohio Railroad Co. (office, Baltimore, Md.) will build repair shops.

**Benwood—Sheet Mill.**—The Riverside Iron Co., of Wheeling, will build its sheet mill referred to in last issue (under Wheeling) at Benwood. Work will probably not begin before spring.

**Benwood—Tube Works.**—It is rumored that the Benwood Iron Works will enlarge its tube works.

**Buckhannon—Saw Mill.**—The Alexander Boom & Lumber Co. has located a portable saw mill on the left fork of the Buckhannon river, 23 miles from Buckhannon.

**Mannington—Oil Well.**—A. J. Montgomery, of Washington, Pa., previously reported as sinking an oil well, will put down three new wells.

**New Cumberland—Electric-light Plant.**—The New Cumberland Light, Heat & Power Co., lately mentioned as organized, is erecting an incandescent plant of 750 lights capacity and will add an arc plant as soon as contract can be made with city. Machinery is purchased.

**Parkersburg—Fire-brick Works.**—The erection of fire-brick works is talked of.

**Parkersburg—Brewery.**—The Parkersburg Brewing Co. has let contract for ice machinery for its brewery, previously reported, to Fitch & Co., of Cincinnati, Ohio, at \$15,000, and for cooperage machinery to Deckenbach & Co., of Cincinnati, Ohio, at \$7,000.

**Parkersburg—Flour Mill.**—C. A. Wade, previously reported as to build a flour mill, is remodeling big mill to the roller system. Edward Corbett, of Washington, D. C., has contract.

**Piedmont—Electric-light Plant.**—The Piedmont Electric Light Co. is reported as to enlarge its plant.

**Shinnston—Pipe Line.**—Several gas wells are being sunk about three miles from Shinnston, and the building of a pipe line to Shinnston is talked of.

**Wellsburg—Gas Well.**—The Riverside Gas Co., and not the Riverside Gas Co., is sinking the gas well previously reported.

**Wellsburg—Gas Well.**—George Given is sinking a gas well.

**Wellsburg—Brick-yard.**—Nichols & Matthews have put new machinery in their brick-yard.

**Wheeling—Ice Factory.**—The Schmulbach Brewing Co., lately reported as enlarging its brewery, has purchased two ice machines of 40 tons capacity each per day, to increase the capacity of its ice factory.

**Wheeling—Machine Shop.**—Baird Bros., contractors for the iron work for the Union Railroad bridge across the Ohio river, have erected a blacksmith and machine shop.

**Wirt County—Saw Mill.**—Robert Fraser, of Warrenton, Va., contemplates erecting a saw mill for cutting oak lumber and staves.\*



## Building Notes.

Anniston, Ala.—The building mentioned in last issue as to be erected by the Bank of Anniston will be 22x96 feet.

Asheville, N. C.—Dr. Charles Hunter and Dr. E. D. Leffingwell, of Danville, N. Y., are investigating with a view to building a sanitarium.

Augusta, Ga.—C. B. Allan has been awarded the contract to rebuild the Augusta Orphan Asylum, lately mentioned, at \$53,300. It is to be five stories, 165x50 feet. Lewis F. Goodrich prepared plans.

Augusta, Ga.—The Armour Packing Co. will, it is reported, build a large refrigerator warehouse.

Baltimore, Md.—Carl Henderson will erect 24 two-story houses on Biddle street near Cannon.

Baltimore, Md.—The legislature will be asked to authorize the building of an additional wing to the House of Correction.

Birmingham, Ala.—Hotel.—W. T. Smith will erect a four-story hotel at the corner of Twenty-third street and Second avenue. It will have a frontage of 100 feet on Second avenue.

Birmingham, Ala.—The Newport News & Mississippi Valley Railroad Co. (office, Richmond, Va.) has let contract for stone work on its new depot, previously reported, to Blatz & Krebs, brick work J. Meriwether and iron work to Sneed & Co.

Birmingham, Ala.—T. C. Thompson & Co. will erect a two-story brick building at C avenue and Twentieth street to cost \$15,000.

Birmingham, Ala.—James H. Windrim, supervising architect, Washington, D. C., will receive bids until the 2d of December for all labor and material required for the new courthouse and postoffice building.

Blackstock, S. C.—A branch of the Southern Building & Loan Association (office, Columbus, Ga.) has been organized.

Charleston, W. Va.—The question of a new opera-house being erected is being agitated.

Chattanooga, Tenn.—The Mountain City Club has purchased a site 40x80 feet for its clubhouse, lately mentioned. Plans are invited until December 1 for a building to cost between \$20,000 and \$30,000. Address R. M. Barton, Jr., president.

Chattanooga, Tenn.—W. M. Wilhoit and Jacob Peyer will build a three-story business house to cost \$25,000 at South Chattanooga.

Columbia, S. C.—The St. Matthew's Building & Loan Association, capital stock \$100,000, has been incorporated.

Columbus, Texas.—Martin, Burns & Johnston, lately announced as the contractors of the new court house and jail, will commence work shortly.

Dallas, Texas.—It is rumored that the Fort Worth & Rio Grande Railroad Co. has made arrangements to build from Comanche to San Saba and Llano by way of Goldthwaite, giving direct connection with Dallas over the Central & Atchison Railway.

Dallas, Texas.—The New York Life Insurance Co. will possibly erect a building costing \$1,000,000. Hon. W. C. Connor, Dallas, can give information.

Dallas, Texas.—The West Texas Conference of the Colored Methodist Church will build a college to cost between \$20,000 and \$30,000 at whatever point in North Texas will offer the greatest inducements. C. F. Moore, 248 Boll street, will receive offers.

Empire, Ga.—The Empire Building, Loan & Trust Co. has been incorporated.

Florence, Ala.—The Primary Trustee Stockholders of the Alabama Alliance Exchange of Lauderdale county meet on the 21st inst. Arrangements are to be made for the erection of an Alliance warehouse at Florence.

Florence, Ala.—The Florence Education & Land Co. solicits bids for the erection of the new Baptist University at Florence. Plans and specifications will be ready November 25th, and contract let December 3d. Building will be 24 feet front, 121 feet deep, and central part four stories high. F. C. Rousseau, of Birmingham, is the architect.

Florence, Ala.—A branch of the Southern Home Building & Loan Association has been organized with Dr. James S. Lawton as president.

Florence, Ala.—The Florence Cotton Mills Co., mentioned in this issue as to build a cotton mill, will erect 50 cottages for its employees.

Florence, S. C.—F. H. Hudson, mentioned in last issue as about to commence work on his opera-house, states that work will not begin before next fall.

Fort Payne, Ala.—J. J. Nix is erecting a three-story brick block.

Fortress Monroe, Va.—The contract for building the officers' quarters, lately reported, was awarded to Hosier & Daugherty for \$8,274.

Fort Payne, Ala.—Hotel.—A \$125,000 hotel will be erected. The Fort Payne Coal & Iron Co. can probably give information.

Fort Worth, Texas.—Plans have been prepared for a truck-house, an engine-house and a central station. J. J. Kane, city engineer, can give information.

Fort Worth, Texas.—A high school will be erected, as lately stated; cost \$71,000. The mayor can give information.

Greenville, Ala.—The Greenville Building & Loan Association will erect 25 cottages in the western part of the town.

Greenville, Ala.—The Baptists will erect a church soon. The Episcopalians will move their church and use it for a Sunday-school after their new house is built.

Hot Springs, Ark.—The Church of Christ will soon erect a new building.

Jackson, Miss.—Hotel.—J. M. Skiles & Co. will, it is stated, build a \$15,000 hotel next summer.

Key West, Fla.—Three market-houses will be erected auxiliary to the one already noted.

King's Mountain, N. C.—R. T. Cansler contemplates making further improvements in fitting up his spring as a summer resort.

Louisburg, N. C.—Plans have been prepared for a new town hall to be built of brick; cost \$6,000.

Louisville, Ky.—Hotel.—Louis Seelbach is negotiating to purchase a site for a \$300,000 hotel.

Louisville, Ky.—Armour & Co., of Chicago, Ill., are reported as to erect a large warehouse and cold-storage building.

Louisville, Ky.—The Louisville Safety Vault & Trust Co. has accepted the plans of Maury & Dodd for the fire-proof building previously reported. It is to be seven stories and cost \$250,000.

Louisville, Ky.—Hotel.—The South Park Hotel Co., reported last week as chartered with \$50,000 capital, will build a 100-room hotel with all modern appliances.\*

Lynchburg, Va.—D. P. Morrison will erect a \$7,500 brick building at Main and Sixth streets.

Macon, Ga.—The Mulberry Street Methodist Church contemplates erecting a college.

Macon, Ga.—It is reported that the Southern Cadets will purchase the property corner of Mulberry and First streets, and erect an armory on the site.

Macon, Ga.—The Covington & Macon Railroad Co. will erect 20 section-houses and 6 freight-houses along their line. Proposals invited. Plans to be seen at office, Macon.

Marion, Ala.—A building and loan association has been organized with C. W. Lovelace as president; J. E. Frazier, vice-president, and A. F. Armstrong, secretary.

McComb City, Miss.—A branch of the Interstate Building & Loan Association has been organized with Heber Craft as president, and Dr. W. P. Gatlin, secretary and treasurer.

Memphis, Tenn.—The First Methodist Church will erect a new edifice.

Monroe, La.—J. P. Parker will build a residence to cost \$5,100, and R. R. Blanks, of Columbia, an \$8,000 residence.

Morganton, N. C.—A branch of the North Carolina Building & Loan Association has been organized by J. J. Hill, supervisor of agencies, with W. C. Ervin, president, and S. T. Pearson, secretary and treasurer.

Monroe, La.—The Merchants & Farmers' Bank will erect a two-story bank building to cost about \$12,000. H. C. Voss has contract.

Montezuma, Ga.—Macon county will probably build a new courthouse. If so, \$5,000 will be donated to secure its erection in Montezuma instead of Oglethorpe.

Murphy, N. C.—The question is being agitated as to the advisability of building a courthouse of marble for Cherokee county.

Nashville, Tenn.—The establishment of a Baptist University is being discussed. An organization will soon be formed and efforts will be made to raise the endowment fund, \$1,000,000.

Nashville, Tenn.—The East End M. E. Church has decided to erect a new edifice, work to commence in two or three weeks.

Nashville, Tenn.—The contract for constructing the gatehouse at the new reservoir of the city water works, mentioned last week, has been awarded to George Moore at \$6,362. W. M. Leftwich, Jr., prepared plans.

Natchez, Miss.—The Louisville, New Orleans & Texas Railroad Co. (office, Memphis) will erect a new passenger depot. The old one will be enlarged and used for freight purposes.

Newnan, Ga.—The Newnan Land Co. will erect at once several cottages on their property.

Newnan, Ga.—Hotel.—The building of a \$25,000 hotel is contemplated by an Alabama capitalist.

New Orleans, La.—The Illinois Central Railroad Co. (office, Chicago, Ill.) is considering the building of a union depot.

Quannah, Texas.—Hotel.—J. K. Rombo is building the hotel reported in last issue.

Richmond, Va.—The Citizens' Building Association No. 7 has received a charter to conduct a general building and loan business. Capital stock is to be not less than \$50,000 or more than \$200,000. A. B. Becker is president, and Charles A. Schmidt, secretary.

Ridgway, S. C.—A branch of the Interstate Building & Loan Association has been organized with W. H. Buff as president, and C. P. Wray, secretary and treasurer.

Roanoke, Va.—James S. Simmons and R. H. Woodrum are building fine residences in the west end.

Salisbury, Texas.—The Salisbury Building & Loan Association has been chartered.

San Antonio, Texas.—Gov. Ross, at Austin, will receive plans and specifications until January 5, 1899, for the new Texas Insane Asylum, recently noted, to be located near San Antonio. Cost of building not to exceed \$150,000. \$500 will be paid for the plans selected.

Selma, Ala.—Hotel.—W. B. Gill will rebuild his hotel, lately reported as burned. The loss was \$50,000.

Southport, N. C.—Hotel.—It is reported that a Northern syndicate has purchased 650 acres of land on the seacoast, on the line of the projected Cape Fear & Cincinnati Railroad, and will lay off a park and build a hotel to contain 350 rooms and to cost \$165,000.

Spartanburg, S. C.—The Converse College Co., recently mentioned as organized, has been incorporated; capital stock \$25,000.

St. Augustine, Fla.—The St. Augustine Improvement Co. has plans nearly completed for the erection of a stone church for the African M. E. Church.

San Marcos, Texas.—A \$15,000 school house will be erected. The mayor can give information.

St. Matthews, S. C.—The St. Matthews Building & Loan Association has been incorporated by M. O. Dantzier, J. H. Loryea, W. T. C. Bates and others. Capital stock is \$100,000.

Tallahassee, Fla.—Hotel.—Charles G. Wicker, lately mentioned as to probably build a hotel, has with others incorporated the Newport Springs & Land Improvement Co. with privilege of building hotels. The authorized capital stock is \$100,000.

Texarkana, Ark.—St. Louis, Iron Mountain & Southern Railroad Co. (office, St. Louis, Mo.) will, it is rumored, erect a brick freight depot to cost \$20,000.

Tuskegee, Ala.—W. P. Thompson, W. A. Cloud, E. T. Varner and others will build a cotton warehouse.

Tyler, Texas.—The new \$60,000 hotel lately reported as to be built is under construction. Messrs. Swan & Long can give information.

Versailles, Ky.—A stock company is being organized to build the opera-house previously reported. It is to cost \$16,000.

Washington, D. C.—The St. Cloud Building at the corner of Ninth and F streets, Northwest, will be torn down and a large ten-story structure will take its place. The property has been purchased by Philadelphia and Boston capitalists for \$200,000, and the new building when completed will be taken by Washington capitalists.

Washington, D. C.—Ground has been broken for a building to be erected by Charles Graff, mentioned three weeks ago, from the designs of Architect Shultz. Work is progressing on the new house of L. H. Schneider, lately reported; designers and builders are Ward & Robinson.

White Sulphur Springs, Ga.—The Georgia Southern & Florida Railroad Co. (office, Macon) contemplates the erection of a hotel.

Washington, D. C.—W. H. West will erect a three-story dwelling to cost \$5,000; L. D. Wilson, a brick dwelling to cost \$8,000; the Concordia Lutheran Church, a chapel to cost \$5,000; James L. Barbour, a warehouse three stories high to cost \$8,000; C. A. Max Whyte, a four-story \$30,000 dwelling; John E. Libbey, 3 two-story dwellings to cost \$9,000; R. A. Phillips, 7 two-story dwellings to cost \$11,000; Joseph Enthoffer, a two-story brick dwelling to cost \$5,000; Wm. Z. Partello, 4 three-story brick dwellings to cost \$8,000; German Orphan Asylum, a new edifice to cost \$25,000; plans have been made by T. F. Schneider for 40 dwellings to cost \$350,000, also for 32 dwellings; by N. T. Haller for a three-story dwelling to cost \$5,000, also for 4 two-story dwellings to cost \$20,000.

Wheeling, W. Va.—The Athenaeum has been purchased by parties who will, it is stated, build a fine music hall on its site.

Wheeling, W. Va.—The Baltimore & Ohio Railroad Co. (office, Baltimore, Md.) is reported as to erect a large freight building.

Wilmington, N. C.—The First Baptist Church will build a lecture hall to cost \$5,000.

CONTEMPLATE BUILDING MOTOR WORKS. RICHMOND, VA., November 16, 1899.—The Wright Motor Co. has been duly incorporated in Southern States. The company designs erecting plant in this city as soon as the first one of its new motors has been built. Will need machinery of various kinds, such as lathes, drills, planers, etc. B. F. WRIGHT.

## The South's Advantages for Cotton Manufacturing.

Major J. F. Hanson, a well-known cotton manufacturer, of Macon, Ga., in a recent paper on cotton manufacturing in the South, prepared to be read before a meeting of New England cotton mill owners, said:

In many instances cotton mills have been constructed in the South by men without practical knowledge of the cost or value of their products. On coarse and medium yarns and fabrics we have pushed production until it is in excess of the demand. In view of this fact the question of changing to finer grades of goods has been discussed to a large extent, and in many cases the machinery originally intended for coarser goods has been changed, as far as it was practicable to do, to finer production, while the extension of plants in other instances have been designed for this purpose.

New England has seen the manufacture of coarse goods, which she originally produced, transferred to the South. The unsatisfactory condition of this trade for a long period is directing attention to finer work, and with an advantage of  $\frac{1}{4}$  of a cent per pound on raw material, it is evident that the South is in position to contest this class of manufacturing with New England. If we had mills upon New England's cost, and her skilled labor and experience in management, there would be no uncertainty with reference to the results of this contest. The South has secured the coarse goods trade on cheaper cotton and labor. In the former her position is strong with reference to the production of finer fabrics, and time will determine the effect of her system of labor on this class of work.

A margin of \$3.50 per bale upon the cotton consumed by Northern mills operating 12,725,000 spindles, and consuming sixty-seven pounds to the spindle annually, or 852,575,000 pounds, would amount to about \$6,394,312.50, which would be saved to these mills if they were operated in the South. This item alone constitutes a saving sufficient to pay 6 per cent. annually upon \$102,000,000; or, at \$25 per spindle, would put in operation 4,000,000 spindles, adding 300 per cent. to the present capacity of all the mills in the South; or it would build one-fourth of all the cotton mills of the Northern States.

The cost of our plants and the absence of skilled labor for the higher grades of manufacture are the barriers now to unlimited development in this direction. When we shall approximate your conditions in these respects, the South will become the greatest cotton manufacturing section of this country. We have suffered from inexperience, but we are learning something. We have been poor, and are yet poor, but our capital is increasing.

ANOTHER NEW TOWN TO BE STARTED—TRENTON, GA., Nov. 4, 1899.—The New England Iron, Coal, Land & Manufacturing Co., of Georgia, was organized under its charter at Morrison, Dade county, Ga., on the 2d inst. by the election of a board of directors, and the board of directors elected Roswell Farnham, of Bradford, Vt., president; L. J. Brown, of Boston, Mass., secretary and treasurer, and F. B. Pratt, assistant secretary and treasurer. They intend to build a new town three miles north of Trenton, named New England City. T. J. LUMPKIN.

[Special dispatch to MANUFACTURERS' RECORD.]

ELECTRIC-LIGHT PLANT WANTED—LAREDO, TEXAS, Nov. 11, 1899.—We are prepared to negotiate for electric-light plant of fifty arcs—twelve hundred candle-power—and one thousand incandescent twenty candle-power capacity.

THE LAREDO IMPROVEMENT CO.

ORE MINING—TALLADEGA, ALA., Nov. 9, 1899.—We have taken a contract to raise 100 tons of brown hematite per day for ten years, and are now opening the beds.

THE ASHLEY-LANIER IRON ORE CO.



## MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Artesian Well Outfit.—James D. Montgomery, Mayor, Hempstead, Texas, wants prices on small artesian well outfit.

Bell.—Bessemer, Ala., will purchase a bell for the city tower. Address J. C. Houston, city clerk.

Boiler and Engine.—G. A. Clute, Clinton, N. C., wants bids on an 80 horse-power boiler and 40 horse-power engine.

Boiler and Engine.—Travis Jones, Waco, Texas, wants two 80 horse-power boilers and one 150 horse-power engine.

Brick Machinery.—Egerton & Ford, Louisville, N. C., will want brick machinery.

Bridge.—C. C. Jones, Greenville, S. C., will receive proposals until November 20 for constructing an iron bridge.

Builders' Supplies.—M., care MANUFACTURERS' RECORD, Baltimore, Md., wants address of manufacturers of builders' materials.

Cane Mill.—L. A. Magruder, Yazoo City, Miss., wants to correspond with the manufacturer of the Douglas patent cane mill.

Canning Factory.—H. B. Wright, Clarksville, Texas, wants bids on outfit for a canning factory with a guaranteed daily capacity of from 6,000 to 10,000 cans.

Cells.—The Franklin County Commissioners, of Louisville, N. C., will soon let contract for furnishing new iron cells for the jail.

Cells.—J. C. Houston, city clerk, Bessemer, Ala., will receive proposals for furnishing iron cells for the city jail.

Cotton Machinery.—The Board of Trade, Louisville, N. C., wants to correspond in regard to machinery for cotton mills.

Cotton Mill.—A. Prendergast, Findlay, Ohio, wants prices on cotton mill machinery.

Electric-light Plant.—N. B. Dilworth, Morganton, N. C., wants information as to cost of an electric plant for lighting that town.

Electric-light Plant.—The Laredo Improvement Co., Laredo, Texas, wants bids on an electric-light plant of sufficient capacity to furnish 50 arc lights of 1,200 candle-power and 1,000 incandescent lights of 20 candle-power.

Elevators.—Gravely & Miller, Danville, Va., will want an elevator or two for tobacco factory.

Elevators.—P. H. Hanes & Co., Winston, N. C., will want elevators in spring for a large tobacco factory.

Engine and Boiler.—C. L. Nussman, Nussman P. O., N. C., wants a second-hand engine and boiler of from 5 to 10 horse-power.

Excelsior and Husk Machines.—P. F. Connally, Waycross, Ga., wants address of manufacturers of the upright excelsior machines and husk or husk machine for grinding shucks in the mattress business.

Fertilizer Machinery.—The Albany Fertilizer Co., Albany, Ga., wants phosphate mills, engine, boilers, elevator, guano cars, &c.

Fire-alarm System.—Nathan O'Berry, Goldsboro, N. C., wants to correspond in regard to purchasing a fire-alarm system.

Flour Mill.—Stafford Bros., Salem Chapel, N. C., want one pair three-foot best French burrs, smut machines, rolls, gearing, belting, bolting cloths, &c., for a flour mill.

Furniture Factory.—Johnson & Co., High Point, N. C., want machinery for the manufacture of bedsteads.

Gin, &c.—C. W. Minnure, Central, Ark., will probably want two gin stands, a boiler and belting.

Gins.—L. W. Carr, Hearne, Texas, will want 4 huller gins with the Munger improvement for handling cotton.

Grist Mill.—C. W. Minnure, Central, Ark., will probably want a grist mill.

Hotel.—T. C. H. Vance, Louisville, Ky., will purchase all machinery and appliances for a 100-room hotel to be built by the South Park Hotel Co.

Implement Factory.—J. B. Ammons, Macon, Ga., will want outfit of machinery for a factory for manufacturing cotton choppers.

Iron Roofing.—Lowry & Witherspoon, Yorkville, S. C., want iron roofing for factory building.

Jackson Holland, superintendent postoffice and courthouse building, Baltimore, Md., will receive proposals until November 22 for furnishing and

putting in place folding doors, slat shutters, iron grating, and the painting of the iron work.

Locomotive.—J. H. Lawson, Talladega, Ala., wants a light locomotive for logging railroad. Flat wood track will be used.

Machine Works.—The Wright Motor Co., Richmond, Va., will soon want complete outfit of machinery, such as lathes, drills, planers, &c., for works for manufacturing motors.

Machinery.—P. F. Connally, Norcross, Ga., wants the address of parties manufacturing machines for grinding shucks in the mattress business, and the upright excelsior machine.

Oat Flour Machinery.—M. A. Smith, 660 West Fayette street, Baltimore, wants information and prices about oat flour and oat meal machinery.

Planer.—A. H. Moss, Middleburg, Fla., wants prices on a planer and matcher. Second-hand preferred.

Propellers.—R. R. Barron, Walnut and Levee streets, New Orleans, La., wants to correspond with the manufacturers of the Chillicothe propellers having cast iron hubs and wrought iron blades.

Punch and Shears, Forges, &c.—Prices for one combination punch and shears; shears to cut flat bar  $1\frac{1}{2}$ "- $\frac{1}{2}$ ", and also  $\frac{3}{4}$ " O; punch to punch 9-16 hole in  $\frac{1}{4}$ " bar; one power blower sufficient to blow three blacksmiths' forges; one 8x10 horizontal engine; one vertical boiler, 15 horse-power, and one belt pump for feeding boiler, are wanted by F. M. Arthur, 66 Fairlie street, Atlanta, Ga. This machinery can be either new or second-hand in first-class order. Punch and shears must be of the most approved pattern.

Quarrying Machinery.—L. Matlock, Yellville, Ark., will probably want a plant for developing marble quarries.

Rails, &c.—Travis Jones, Waco, Texas, wants 18,000 feet of 30-lb. flat rail for street railroad, 20,000 feet of 30-lb. T rail, bolts, straps, &c.

Saw Mill.—A. H. Moss, Middleburg, Fla., wants prices on a saw mill with 40-foot carriage. Good second-hand preferred.

Saw Mill.—Robert Frazer, Warrenton, Va., wants to purchase machinery for saw mill for cutting oak lumber and staves.

Saw Mill Outfit.—W. R. Coleman, Yazoo City, Miss., wants prices on saw mill outfit.

Stamp Mill.—The Lucky Eight Gold Mining Co., Gainesville, Ga., will want a 10-stamp gold mill of 850-lb. stamp.

Soapstone.—J. P. Fitzgerald, Farmville, Va., wants information about soapstone, its value, uses, etc.

Spoke Machine.—Lowry & Witherspoon, Yorkville, S. C., want spoke tenoning and facing machine.

Tobacco Factory.—P. H. Haynes & Co., Winston, N. C., will want machinery in spring for a large tobacco factory; also iron columns.

Town Clock.—F. E. Hunter, El Paso, Texas, will receive bids until December 2 for furnishing a town clock.

Wells.—G. E. Borce, El Paso, Texas, wants bids for sinking artesian wells—say 3,000 feet.

Wood-working Machinery.—Mobley & Lasseater, Waynesboro, Ga., will want in the future wood-working machinery, including band saw, cut-off saw, lathes, etc.

Wood-working Machinery.—Johnson & Co., High Point, N. C., want some machinery for bedstead factory. They have power.

## BURNED.

Centerside, Ga.—The merchant mills of J. D. Cooley; loss \$5,000.

Frenchburg, Ky.—The saw mill of J. Klabus damaged by a boiler explosion.

Huntingdon, Tenn.—The saw mill of G. T. Bullock. Will probably be rebuilt.

Laurens, S. C.—The Badgett grist mill and cotton gin, 8 miles from Laurens, damaged by a boiler explosion.

Macon, Ark.—The saw mill of E. H. Hillman.

Montezuma, Ga.—The variety works of W. H. Underwood.

The cotton gins of J. M. Green, Quitman, Ga.; on the Skinner place, near Stoneville, Miss.; Allen Myers, near Holland, Texas; W. L. Madden, near Damascus, Miss.; C. H. Allyn, near Chatfield, Texas; Farmers' Alliance, Alexandria, Ala.; Mrs. J. L. Cotton, near Whitesville, Ga.; Elber Askew, in Jackson county, Ga.; W. S. McEmurray, near Madison, Ga.; and J. M. & C. J. Foster, Shreveport, La., have been burned.

GOLD MINING.—\$20,000 ORE REPORTED.—ELLI-GAY, GA., Nov. 11, 1899.—We have purchased a prospecting stamp mill; will need a 10-stamp gold mill of 850-lb. stamp in a short time. We are now making gold ore that assays twenty thousand dollars to the ton. Have a large amount of lower grade ore—over 260 acres. Will be able in a few weeks to give estimate for a larger mill, &c.

THOS. H. B. HAASE,

Gen. Man. Lucky Eight Gold Mining Co.

## HETHERINGTON &amp; NASON,

Manufacturers and Dealers in Supplies for

## Boiler Makers, Machinists, Railroads, Steam &amp; Gas Fitters

Boiler Plate and Tank Iron, Lap-Welded Pipe and Boiler Tubes, Boiler and Sheet Iron Rivets, Steam Brass Goods and Engine Trimmings, Iron Valves and Fittings, Pipe Workers' and Machinists' Tools, Wood and Iron Pulleys, Belting, Hose and Packing, SEWER PIPE, FIRE BRICK and CLAY.

405 and 407 Elm Street, Dallas, Texas.

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Cheapest and best Steam Generators on the market.

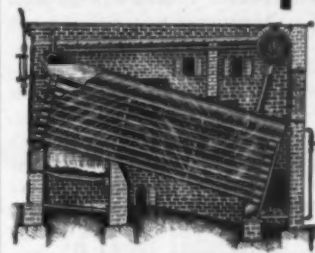
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PLANS AND SPECIFICATIONS FURNISHED FOR THE CONSTRUCTION OF EQUIPMENT AND ORGANIZATION OF COTTON AND WOOLLEN MILLS.

WRITE FOR PRICES TO  
THE SOUTHERN EQUIPMENT CO.  
Representing reliable manufacturers of  
Railway, Mining and Mill Supplies.  
ORDERS FILLED PROMPTLY.  
Chattanooga, Tenn.

Rumors That Dissolve When Touched.

[Special Dispatch to MANUFACTURERS' RECORD.]  
NEW YORK, November 12, 1899.

Mr. John H. Inman denied to-day that there was any truth in the report recently telegraphed from here to a Birmingham paper that there was a financial battle on hand between himself and Duncan, the other "Southern financial mastodon." He had heard nothing about ten additional furnaces to be planted soon in Alabama and Tennessee. Capt. John C. Calhoun said he had not heard one word to confirm these rumors.

Neither of these gentlemen had heard anything to substantiate the report that the Standard Oil men were making fabulous offers for the stock of the Tennessee Coal & Iron Co. Mr. Inman and Capt. Calhoun were both unable to confirm the report that an English syndicate was trying to get control of a number of hotels, North and South; and they had heard nothing of efforts being made by a Boston syndicate to secure the stock of the Elyton Land Co.

Your correspondent learns on good authority that each one hundred shares of the Elyton Land Co.'s stock has paid up to the present time a total of \$200,000 in dividends.

CANNING FACTORY.—CLARKSVILLE, TEX., Nov. 10, 1899.—We have organized a canning factory with \$10,000 paid-up capital, backed by at least \$250,000 available capital. We will want to buy machinery for a guaranteed capacity of from 6,000 to 10,000, and would be much pleased to hear from machinery men on the question.

H. B. WRIGHT.

The BOOMER & BOSCHERT  
KNUCKLE JOINT  
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Cloth, Paper, Yarn, &c.  
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329 W. Water St. Syracuse, N. Y.

## CAR PILE DRIVERS

Extension from, to drive from one bent to another, 20 feet lateral swing, 2 feet from center. Fitted up with our new-style Nanytha Steam Pile Drivers.  
VULCAN IRON WORKS, CHICAGO.

W. H. COLE,  
Electrical ENGINEER

Consulting Electrician,  
80 Fifth Ave., New York.

Tests, Measurements and Estimates of all kinds. Sole agent of the Phoenix Incandescent Lamp Co. Lamps for any System and Candle Power.

## The Fort Worth Loan &amp; Construction Co.

CAPITAL, FULLY PAID, \$100,000.

We are prepared to furnish plans and construct large buildings, public or private, and when desired carrying part of the cost of construction as a deferred payment.

PRINCIPAL BUSINESS OFFICE, FORT WORTH, TEXAS.  
EASTERN OFFICE, EQUITABLE BUILDING, BOSTON.

POPULAR AND DIRECT ROUTE.

## THE BAY LINE

For Old Point Comfort, Norfolk and the South.

Steamers leave daily (except Sunday) Union Dock 6.30 P. M.; Canton Wharf 7 P. M.; arrive Old Point Comfort 7 A. M., at Norfolk at 8 A. M., Portsmouth 8.15 A. M. At OLD POINT COMFORT connect with CHESAPEAKE & OHIO RAILROAD for Richmond, Charlottesville, Greenbrier, White Sulphur Springs, Louisville, Cincinnati and all points West. At NORFOLK with NORFOLK & WESTERN RAILROAD for Petersburg, Richmond, Lynchburg, Roanoke, Bristol, Knoxville, Chattanooga, Memphis and the Southwest; also with the NORFOLK SOUTHERN RAILROAD for Elizabeth City, Edenton and Eastern North Carolina. At PORTSMOUTH, VA., with SEABOARD & ROANOKE RAILROAD for Weldon, Raleigh, Southern Pines, Charlotte, Fayetteville, Newberne, Wilmington, Charleston, Columbia, Augusta, Savannah, Jacksonville and all PRINCIPAL SOUTHERN CITIES.

Palace Steamers, Unsurpassed Cuisine, Undisturbed Night's Rest, Sura Connection. For Tickets and information apply at Company's Office, 139 E. Baltimore St. or on board steamers.

E. BROWN, G. T. A. KENNEDY JONES, Agent.

### "Mohawk Dutchman" Band Saw Guide.

To insure even and easy running of a band saw machine it is necessary that the saw blade should move with all freedom possible. It has ever been a problem to construct guides that would offer little or no resistance to the motion of the blade. To prevent friction at the back of blade seems to have been the universal admission of experts as an impossibility, and experiments with the innumerable appliances invented to obviate this difficulty have resulted generally in failure.

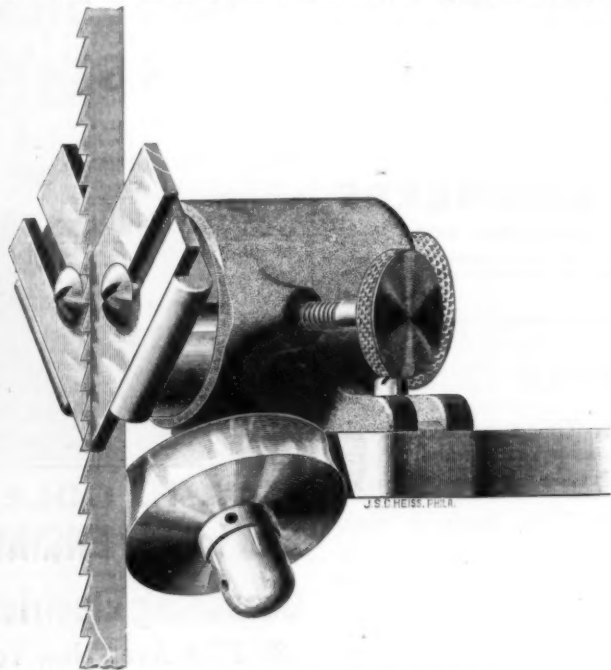
The importance of a perfect working guide is obvious, and one that will prevent the many difficulties experienced and so well known to operators should not fail to command universal endorsement.

The engraving herewith presented illustrates the invention of R. McChesney, well known as "The Mohawk Dutchman," and enjoying the reputation of being the most expert band sawyer in the world.

This device, it is claimed, prevents all the annoyances and practically overcomes the trying difficulties formerly experienced with other guides.

It is manufactured by Goodell & Waters, Philadelphia, and thus described in their circular:

The saw in its downward motion re-



"MOHAWK DUTCHMAN" BAND SAW GUIDE.

volves the wheel forming the back guide, such wheel having a slightly concave surface and set on an angle so that the plane in which the saw moves intersects the axis of the wheel near the middle of the wheel. As the wheel continually revolves while the saw is running, it is impossible for the saw to form any groove or rut in the rim of the wheel, thus giving the saw a free and unobstructed motion, creating no friction, keeping the saw firmly up to the work, doing it smoother and quicker, and preventing crystallizing, cramping or checking of the blade. The wheel runs on a ball bearing, requires no oiling, never heats and is always in proper adjustment. The temper of the saw is not disturbed in the least, which is in itself a very important feature, and the wheel has a tendency to straighten the blade at the back.

The adjustments are few and quickly made. A thumb screw at the back of the guide regulates the jaws for saws of different widths and the side guides are adjusted for different gauge saws by a simple movement of machine screws. Wood and metal side pieces are sent with each guide, and either may be used at option of operator. They may be applied to all styles and makes of machines, and to band saws as well. For prices and further details we refer our readers to the manufacturers, Goodell & Waters, Philadelphia.

**THERMODYNAMIC, HEAT MOTORS AND REFRIGERATING MACHINES.** By De Volson Wood, C. E., M. A., professor of engineering in the Stevens Institute of Technology. Third edition, revised and enlarged. New York: John Wiley & Sons, 15 Astor Place.

The first edition of this valuable work appeared in September, 1888. The third edition contains a variety of new subjects and miscellaneous matter compiled from the best sources. The book aims at the development of the essential principles of thermodynamics or the application of heat as a motive power. It deals with the physics and mathematics of heat, air, gases and vapors, heat motors and refrigerating machines. It may be said to be a complete treatise, combining, as it does, all that is essential in the great works of Rankine, Clausius and Thomson. It does not seek to popularize the science of thermodynamics, but aims at leading the reader up to the summit by a more easy and graded path than can be found in the writings of the great specialists. The settled principles of the science are developed for the most part in the body of the work, while special subjects are treated in the addenda. The additions comprise discussions of the vapor engine, Sterling's engine, Ericsson's hot-air engine, the gas engine, naphtha engine, ammonia engine, steam injector, pulsometer, compressed air

engine, the compressor, steam turbine, refrigerating machines, combustion of fuel, steam, ammonia and other tables and miscellaneous matter.

THE Lafayette Car Co. lately decided to install an electric lighting plant for the illumination of their extensive buildings and yards at Lafayette, Indiana. The order was placed with Heisler Electric Light Co., of St. Louis, and prompt shipment required. The apparatus was shipped from St. Louis on the day following the receipt of the order. The Rawson & Root Lumber Co., of Michigan City, Ind., which has been operating a Heisler electric lighting plant for about a year, has contracted to furnish a large number of lights to the furniture manufacturers whose works are run in connection with the Northern Indiana State Prison. To carry out this contract an order has been placed with the Heisler Electric Light Co., of St. Louis, for one of their largest dynamos, with the necessary lamps, sockets, etc. The new apparatus is to be in operation before the middle of November.

**If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$4.00 a year.**

**WILL REBUILD BURNED MILL—MIDDLEBURG, FLA., Nov. 8, 1889.**—My saw and planing mill was burned; loss \$3,000 to \$4,000; no insurance. I think I shall rebuild, and will want a saw mill and planer and matcher; would prefer good second-hand machinery; would want about a 40-foot carriage; prefer a log beam carriage. The Green Cove Brick Works has a new heavy brick machine, and is putting in a 75 horse-power boiler and Westinghouse engine to run it.

A. H. MOSS.

**COTTON-SEED OIL MILL—WASHINGTON, GA., Nov. 6, 1889.**—The Excelsior Manufacturing Co., chartered yesterday, propose building a cotton-seed oil mill in the near future.

R. O. BARKSDALE.

### PROPOSALS.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M., on the 5th day of December, 1889, for the erection and completion of two roofs at mailing platforms for the U. S. Custom House and Sub-Treasury building at Chicago, Ill., in accordance with the drawing and specification, copies of which may be had on application at this office or the office of Superintendent of Repairs at the building. Each bid must be accompanied by a certified check for \$100. JAS. H. WINDRIM, Supervising Architect. November 11th, 1889.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M., on the 10th day of December, 1889, for the iron beams, girders, wood joists, &c., for 1st floor of the United States Custom House, Post-office and Courthouse at El Paso, Texas, in accordance with drawings and specification, copies of which may be had on application at this office or the office of the Superintendent. Each bid must be accompanied by a certified check for \$100. JAS. H. WINDRIM, Supervising Architect. November 8th, 1889.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M., on the 3rd day of December, 1889, for all the labor and materials required to complete the iron work of the Tower and Dome of the U. S. Court-house and Postoffice building at Denver, Col., in accordance with the drawings and specification, copies of which may be had on application at this office or the office of the Superintendent. Each bid must be accompanied by a certified check for \$200. JAS. H. WINDRIM, Supervising Architect. November 7th, 1889.

**SEALED PROPOSALS** will be received at the office of the Superintendent of the Post-office, Court House, &c., building at Baltimore, Md., until 2 o'clock P. M. on the 22d day of November, 1889, for all the labor and materials required to put in place complete folding doors, sash shutters, iron grating in doorway, and painting iron work in the above-named building, in accordance with the drawing and specification, copies of which may be had on application at this office. Each bid must be accompanied by a certified check for \$100. JACKSON HOLLAND, Superintendent. November 6th, 1889.

**SEALED BIDS** with specifications will be received by the Board County Commissioners for Orange County, Florida, for the erection of four cells and a corridor with locks and appurtenances and with steps to the corridor similar to the cells and corridor now in the jail at Orlando, Orange County, Florida, the same to be placed on top of the present cells and corridor. Such bids to be forwarded to the Clerk of the Circuit Court for Orange County, Florida, at Orlando, Fla., on or before the first Monday in December, A. D. 1889. The County reserving the right to reject any and all bids. By order of the Board, B. F. WHITNER, Chairman. Attest, D. S. SHINE, Clerk.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M., on the 2d day of December, 1889, for all the labor and materials required for the trench excavation, concrete foundations and stone and brick work of the U. S. Court-house and Postoffice building at Birmingham, Ala. in accordance with the drawings and specifications, copies of which may be had on application at this office or the office of the Superintendent. Each bid must be accompanied by a certified check for \$500. JAS. H. WINDRIM, Supervising Architect. November 5, 1889.

**SEALED PROPOSALS** will be received at the office of the Supervising Architect, Treasury Department, Washington, D. C., until 2 o'clock P. M., on the 13th day of December, 1889, for the iron floor construction of first floor of the U. S. Custom House, Postoffice, &c., building at Port Townsend, W. T., in accordance with drawing and specification, copies of which may be had on application at this office or the office of the Superintendent. Each bid must be accompanied by a certified check for \$100. JAS. H. WINDRIM, Supervising Architect. November 5th, 1889.

### WANTS.

**WANTED TO LEASE**—A good manufacturing property, street railway, electric light, or similar concerns in one of the Southern States. Address Box 68, Williamsport, Pa.

**WANTED**—A situation as purchasing agent for a manufacturing house by a man 24 years old, with ten years' experience as clerk with one of the largest hardware houses in the country. Address "H," care of Manufacturers' Record.

**WANTED PARTNER**  
With Capital of \$5,000.

to take interest in established lumber and manufacturing business with \$10,000 already invested. Profits last year fifty per cent. Thorough investigation invited. Address

J. W. ROBERTSON & CO., Morgantown, N. C.

### WANTED.

## Capital to Develop.

I want party with \$20,000 cash to join me in purchasing and developing New Town in mineral belt of Georgia. I regard it the finest opening for profitable investment in the South. Only responsible people need apply.

**W. H. HOWCOTT,**  
NEW ORLEANS, LA.

### SPECIAL INDUCEMENTS

OFFERED

## MANUFACTURERS.

Manufacturing Sites, Mills, Farms,  
and Village Property,

for sale by

**J. L. MOON, Scottsville, Va.**

### Street Car Line FOR SALE.

The Gadsden Land and Improvement Co. will sell their line. Has 2½ miles Standard Gauge, 35 pound Steel Rail. Has Baldwin Motor and 2 Coaches. Operates 5 miles of Leased Road to Attalla. Road is earning over and above all expenses, lease included, six per cent. on eighty thousand dollars. Address

**R. B. KYLE, Pres. G. L. and I. Co.**  
GADSDEN, ALA.

### FOR SALE.

12-ton ice plant (Pictet) all complete and in first-class order, can be had at one-third cost, and been in use only one year. For particulars inquire of

**SO. FLORIDA FOUNDRY & MACHINE CO.,**  
ORLANDO, FLA.

### FOR SALE.

## BRICK-YARD

With all New and Improved Machinery and Steam Dryers.

Now turning out 30,000 brick per day. Houses for superintendent and employees, together with 150 acres best brick in the State. Located at Riverside, on Coosa river and Georgia Pacific Ry. between Birmingham and Anniston, Ala. A rare chance for parties seeking an investment. For further particulars, address

**MORRIS, ISON & CO.**  
RIVERSIDE, ALA.

### FOR SALE

TO THE HIGHEST BIDDER,  
THE TERRELL

## Cotton and Woolen Mill,

located in Terrell, 32 miles east of Dallas, on the Texas & Pacific Railroad, consisting of one two-story brick, tin-roof building, 150x60 feet, and the machinery necessary for a 2,200-spindle mill, with 36 looms, all in position. Will be sold to the highest bidder on the 22d day of January, 1890. Address

**TERRELL COTTON AND WOOLEN MFG. CO.**  
TERRELL, TEXAS.

## RADFORD, VA.

Town Lots, Mineral Timber and Farm Lands.  
We have many large and small tracts.

Iron Ore, Coal, Glass, Sand, Marble, Building Stone, and Several Mineral Springs, of Wonderful Curative Properties.

The best of farming and grazing lands. No malaria. No mosquitoes. Salubrious climate. Gorgeous scenery. Water power unlimited. Factory sites donated. Property at first hands, so get in on "rock bottom." Write to, or call on

**BARCLAY & CROCKETT,**  
The leading Real Estate Agents of Southwest Virginia, RADFORD, VIRGINIA.



# DENISON,

## TEXAS.

THE  
Future Manufacturing and Commercial Center  
OF THE  
**GREAT SOUTHWEST.**

### Denison Supplies the Coal for Texas.

She has at her gates the only **COKING COAL** of any value in the Mississippi Valley. To the Southwest lies the best **MAGNETIC IRON ORE** in the world, while to the north and southeast are fields of **BROWN HEMATITE ORE** of the finest grade. These ores must meet the **COKE** and **COAL** at **DENISON** and there be worked.

**DENISON** cannot be surpassed for **HEALTHFULNESS** and **BEAUTY** of location. Six divisions of railways terminate at Denison and are operated by her citizens.

**DENISON** has an abundant supply of pure, soft water and plenty of good, cheap **BUILDING MATERIAL.**

The attention of investors and those seeking advantageous locations for business or for manufacturing plants is invited to the opportunities presented at Denison.

### MUNSON & BRO. HAVE SUPERIOR FACILITIES FOR THE SAFE AND PROFITABLE INVESTMENT AND HANDLING OF CAPITAL.

For information about **DENISON** and for bargains in **BUSINESS** and **RESIDENCE PROPERTY**, **ACRE PROPERTY** and **FARMS NEAR THE CITY**, write or call upon

## MUNSON & BRO.

301 WOODWARD STREET, DENISON, TEXAS.

### A SPLENDID OPPORTUNITY

to secure a well-established Business in a Growing Southern City of over 80,000 inhabitants.

For Lease and Fixtures for Sale,

## A Modern Boiler Shop

thoroughly equipped with power and water and the latest and most improved Punches, Shears, Rolls, Planers, Overhead Cranes, Riveting Machinery, Sheet Iron and Hand Tools. Railroad switch enters shop. Capacity for four hundred Boilers per year. The proper party can secure these works on favorable terms, and can pay for the tools out of orders that owners will guarantee. Address "INDUSTRY," care of Manufacturers' Record.

## 500 per cent. in Land

Adjoining city limits at Augusta, Georgia.

## Largest Cotton Manufacturing City in the South.

2,600 acres lying west. High rolling land—the only available high land for city extension. Only needs rapid transit to become at once available, at \$1,000 to \$2,000 per acre. Can be bought now at \$50 to \$100 per acre in large or small tracts.

## No Finer Suburban Lands in the South.

Investors and builders of dummy railroads invited to investigate this field for development of profitable enterprise.

ADDRESS

**J. H. Alexander,**  
AUGUSTA, GA.

## Canning Factories

ESTABLISHED AND BUILT.

ALSO  
SUPERINTENDENTS FURNISHED  
To take charge of Factories.

ADDRESS  
**C. PALMER MFG. CO.,** Blair, Nebraska.

### AN ELEGANT CHANCE

for a PROSPEROUS BUSINESS in a Southern City of 100,000 inhabitants.

## A THOROUGHLY-EQUIPPED FOUNDRY

of twenty tons daily capacity, to lease for a term of years. Fixtures for sale at cost and valuable contracts guaranteed. For particulars address "BOOM," in care of the Manufacturers' Record.

## A Good Investment

For any one who wishes to build up a

## Manufacturing Industry IN THE SOUTH.

I will sell a tract of 320 acres land, situated near the central part of Alabama, near to the iron and coal fields, and surrounded by the cotton fields and timbered lands of the State.

The tract is well timbered, with good water-power facilities for driving machinery. There are on the premises, in good working order, two water-power wheels, one driving a set of 44-inch grist rocks, and the other a 45-saw cotton gin. The natural advantages for building up a manufacturing industry in wood and fabrics are excellent. Write for full particulars.

**D. H. Loughridge,**  
SPROTT, ALA.

## NOTICE TO MANUFACTURERS!

THE CITIZENS OF

## DALLAS, TEXAS,

### OFFER INDUCEMENTS

in the way of **BONUSES, STOCK, SUBSCRIPTION, &c.**, to every reliable manufacturing enterprise that will, in the next six or twelve months locate within her borders.

FOR PARTICULARS ADDRESS THE

**Webster-Wood Real Estate & Guarantee Co.**  
DALLAS, TEXAS.

### To Those Looking For

## MANUFACTURING SITES IN THE SOUTH.

The most desirable locations in the South for manufacturing wagons, stoves, agricultural implements, furniture, or for foundries, machine shops, rolling mills, muck bar mills, nail works, glass works, cotton or woolen mills, and tanneries, are to be found in Virginia along the line of the Norfolk & Western Railroad from Norfolk to Bristol, and upon its branch lines. Hard wood of every variety; pig iron from the furnaces at Lynchburg (2), Roanoke (2 in operation and 1 now under construction), Pulaski (1), Ivanhoe (1), Radford (1, to be built in 1890), Salem, Graham and Max Meadows (1 at each point now under construction); bar iron from the rolling mills at Roanoke and Lynchburg; coke and semi-bituminous coal from the Pocahontas Flat Top field; superior gas coals from mines on the Clinch Valley Extension; glass sand from Tazewell county; cotton from the markets of the Southern States, and wool from all the Western and South-western States and Territories at advantageous freight rates. Favorable freight rates made upon raw materials to all factories established upon its line, as well as to points in the United States and Territories upon the manufactured articles.

Those seeking new fields for manufacturing establishments should not fail to investigate the wonderful development in iron, coal and coke industries that has been made within the past five years along the line of the Norfolk & Western Railroad, and the advantages offered by the State of Virginia in the supply of cheap raw materials; by the Norfolk & Western Railroad in the matter of freight facilities and rates upon raw materials and for reaching home, far distant and foreign markets, and by the cities and towns along its line in the way of advantageous sites at moderate cost. Many of the cities and towns exempt manufacturing establishments from taxation for a series of years.

For further information as to freight rates and sources of supply of raw materials, apply to A. Pope, General Freight Agent, Roanoke, Va., or to

**CHAS. G. EDDY,**  
Vice-President, Roanoke, Va.

## FOR SALE.

**DARLINGTON LAND IMPROVEMENT CO.**  
Lots within the incorporate limits of the town of Darlington, and fine farming lands adjacent, for sale. Railroad facilities good. Fine graded school in town. For further particulars apply to J. J. WARD, President and Treasurer of Darlington Land Improvement Co., Darlington, S. C.

## FOR SALE.

**A NEW 100 HORSE-POWER AUTOMATIC CUT-OFF ENGINE, at a Low Price.**

Also a 100 horse power **SLIDE VALVE ENGINE** that has been in use 18 months, but is in most excellent running order. Can be seen running for a month. Will be sold at one-half its cost. Apply to

**RICHMOND MACHINE WORKS,**  
RICHMOND, IND.

## Bargains in Machine Tools.

We have the following Machine Tools, taken mainly in exchange for those of our own manufacture. We will sell them low.

### LATHES.

- 3 8-in. x 8-ft. 3-in. P. & W. Bench Hand Lathe, Good Order.
- 4 9-in. x 8-ft. P. & W. Bench Hand Lathe, Good Order.
- 3 10-in. x 3 ft. P. & W. Bench Hand Lathe, " "
- 2 7 1/2-in. x 8 ft. 8-in. P. & W. Bench Turret Lathe, " "
- 1 10-in. x 8-ft. 6 in. P. & W. Bench Turret Lathe, " "
- 1 Small P. & W. Screw Machinery Lathe, " "
- 1 Medium P. & W. Screw Machinery Lathe, " "
- 1 12x5 Star Hand Lathe, New.
- 1 15x5 Fitchburg Lathe, Good Order.
- 1 17x5 New Haven Lathe, Good Order.
- 1 17x5 Putnam Lathe, Good Order.
- 1 18x5 Gray Lathe, Good Order.
- 1 18x5 New Haven Lathe, Good Order.
- 1 18x5 George Baker Lathe, Good Order.
- 1 20x5 Ames Lathe, Good Order.
- 1 20x5 L. W. Pond Lathe, Good Order.
- 1 20x5 Ames Lathe, Good Order.
- 1 20x5 W. & L. Lathe, Good Order.
- 1 20x5 Fitchburg Lathe, Nearly New.
- 1 20x5 P. & W. Gap Turret Lathe, Good Order.
- 1 22x5 Niles Shafing Lathe, with 3 tool shafing rest, Good Order.
- 1 26x5 Niles Lathe, Good Order.
- 1 20x5 W. & L. Lathe, Good Order.

### PLANERS.

- 1 12-in. W. & L. Shaper Traveling Head, Good Order.
- 1 15-in. Hendey Shaper, Good Order.
- 1 24-in. Hendey Shaper, Good Order.
- 1 Planer 24x42x8 New Haven, Good Order.
- 1 Planer 20x32x5 Brattle, Good Order.
- 1 Planer 28x32x8 Aldrich & Bailey, Good Order.
- 1 Planer 26x32x8 Stevens, Good Order.
- 1 Planer 32x42x12 Enterprise, Good Order.

### MISCELLANEOUS.

- 20-in. S. H. Blawie Drill, Good Order.
- 20-in. S. H. Lathe and Morse Drill, Good Order.
- 1 24-in. S. H. Niles Drill, Good Order.
- 1 36-in. B. G. Drill, Good Order.
- 1 40-in. H. & J. Radial Drill, Good Order.
- 1 Battman Radial Drill, New.
- 1 No. 4 Garvin Miller, plain, Nearly New.
- 1 No. 4 Garvin Miller, plain, New.
- 1 No. 4 Spindle Valve Miller, Nearly New.
- 1 Single Punch and Shears, 3/4 sole and 3/4 iron, New.
- 1 Long & Alstatler Double Punch & Shear, 3/4-in. hole, 3/4-in. iron, Nearly New.
- 1 Wiley & Russell Bolt Cutter, Good Order.
- 1 Standish Foot-Power Hammer, New.
- 1 Williams & White 200-lb. Drop Hammer, G. Order.
- 1 Blundell & Co. Screw Press, Good Order.
- 1 Sturtevant Blower, Good Order.

Write for Prices.  
New additions constantly made to this list.  
Complete estimates made on outfit.

**THE LODGE & DAVIS MACHINE TOOL CO.**  
Cincinnati, Ohio.

Manufacturers of Engine Lathes, Shapers, Upright Drills, etc. Dealers in Iron and Brass Working Machinery.

Western Store 68 & 70 S. Canal St., Chicago.

## JAS. P. WITHEROW.

ENGINEER & CONTRACTOR,

**Furnace & Steel**

**Plant Construction.**

PITTSBURGH, U. S. A.

Blast Furnaces and Steel Works designed and erected complete in every detail ready for operation. Special attention given to the manufacture of

\* HEINE \*

**Safety Water Tube Boilers.**

Owning an extensive manufacturing plant, I can guarantee promptness in execution, and satisfaction in any contracts undertaken by me.

# CHARLOTTESVILLE, VA.

OFFERS

Great Advantages and Liberal Inducements to Manufacturers

DESIRING TO LOCATE SOUTH.

Railroad Facilities, Cheap Rates and Rapid Transportation to all Points Unexcelled.

PERFECT CLIMATE.

UNLIMITED SUPPLY OF EXCELLENT WATER.

Gas, Electricity and Street Railway. Free Schools and Churches. Different Lines of Manufacturing Enterprises Already in Successful Operation Here.

## A LIVE AND GROWING PLACE.

HOME CAPITAL WILL JOIN IN THE ESTABLISHMENT AND OPERATION OF FACTORIES.

COME AND SEE, OR WRITE TO **JOHN M. WHITE, President.**

**CHARLOTTESVILLE INDUSTRIAL & LAND IMPROVEMENT CO., Charlottesville, Va.**

## SUMTER

South Carolina,

is situated in Sumter county, midway between Florence and Columbia—40 miles from each—95 miles from Charleston, 125 from Augusta, Ga., and 136 from Wilmington, N. C., in the heart of an

### EXCELLENT AGRICULTURAL COUNTRY.

It is on the Wilmington, Columbia & Augusta Railroad, and is the terminus of the Central of South Carolina as well as present terminus of the Eutawville Railroad, which is in course of construction to connect with railroads from Norfolk, with prospects of another in the near future.

It has a rapidly-increasing population, which at present numbers about 4,000.

### ITS HEALTH IS UNSURPASSED

and it is one of the finest locations in the South for a

## Winter Resort

for those seeking refuge from the cold blasts of the North.

A \$50,000 HOTEL is now under discussion, and any reliable hotel man who would like to engage in the undertaking can learn of something to his advantage by addressing Mayor Mood.

## ICE FACTORY

is wanted: an Electric-Light Plant is now being put in, and Water Works are in progress.

Those seeking locations for

## HOMES

or business will do well to correspond with the people of Sumter.

## CAMDEN,

The Capital of Kershaw County,  
South Carolina.

This ancient and historic town is noted for its dry atmosphere, pure water, beautiful scenery, healthful climate and refined society.

It is the center of a rich agricultural country, which contains great natural resources. Hardwoods of many species are abundant, and great forests of long leaf pine, which impregnate the air with terebenthine odors. Several good hotels entertain travelers, and two are carefully conducted for the especial comfort of northern health and pleasure seekers.

Manufacturing of all kinds can be done here advantageously. Two railroads, the South Carolina and the Charleston, Cincinnati & Chicago, furnish transportation to all parts of the country. Two telegraph lines, the Postal and the Western Union, have offices here.

Churches and schools are numerous and well sustained.

A cotton mill company has been organized, and the first installment of twenty per cent. has been called in.

Land is cheap. The climate is salubrious, and subject to no extremes during the year.

Camden invites capitalists, manufacturers, pleasure and health seekers and sportsmen to visit the city and examine the advantages it offers to all.

All inquiries will be promptly answered by the undersigned, official representative of the intendand warders.

**DR. JOHN W. CORBETT**

Or the President of the Board of Trade.

**\$1,000 Bonus.**

## FREE SITES!

TO MAKE A

*Profitable Investment,*

Correspond with Secretary New Berne Board of Trade.

## New Berne, North Carolina

IN RELATION TO THE

**MANY SUPERIOR ADVANTAGES**

—AND—

**Ample Inducements**

that **NEW BERNE** is holding out

to those desiring to establish

**FACTORIES WHERE THEY WILL PAY.**

We are in the center of a most magnificent timber region. Wood of all kinds in abundance, and the best facilities for transporting to the mill and from the mill to market.

We are very anxious to develop our section by establishing factories. We have everything except capital, and we will make it pay capital to come to us.

We know that people flock to the booming sections, but still we do not want a boom, but a good, substantial and steady growth, such as we have had for the past ten years. The point is now reached with us that we can go no farther without capital to assist, and it will pay capital to investigate what we have to offer.

New Berne is now offering every inducement possible to aid manufacturing investors who will establish enterprises adapted to the natural advantages of this section. Address

**Secretary New Berne Board of Trade**

GEO. T. McWHORTER, President, Chickasaw, Ala.

JAS. M. ALLEN, Secretary, Waterloo, Ala.

**Capital Stock \$200,000.**

THE

**Waterloo Land, Mining & Mfg. Co.**

of Waterloo, Lauderdale Co., Ala.

will encourage the location of manufacturing and industrial enterprises in the town of Waterloo by donations of town lots, mineral and timber lands, and stock of the company. Persons who contemplate engaging in enterprises of this character in North Alabama are requested to consider the advantages, present and prospective, of this point before deciding to locate elsewhere. Waterloo is situated on the north bank of the Tennessee river, below Colbert Shoals and consequently at the head of summer navigation on said river. During low-water stage light draft steamers run from Waterloo to Florence, Sheffield and other points above the shoals, freight being transferred at Waterloo. At this season goods may be billed from St. Louis, Cincinnati, Louisville, Evansville and all Western river cities to Waterloo cheaper than to any other town in Alabama Chickasaw excepted. Waterloo is in the heart of the mineral belt, the immense beds of iron ore of Wayne and Lauderdale Counties lying in close proximity (5 to 10 miles). Limestone, silica and kaolin are abundant and close. The largest area of virgin forest in North Alabama lies in sight. The Land Company owns large bodies of this, together with many valuable town lots. The water supply is abundant and pure. Scores of springs bubble up within the town limits and the limpid waters of Second Creek wash the eastern border. The health of the community is unexcelled and the cost of living cheap. This is the largest shipping point for tan bark in the state. Present price of bark at landing \$4.50 per cord. Special facilities for tanning leather. The Land Company will donate a large body of fine timber and mineral land in a block to secure the construction of a railroad, north or east from Waterloo, such a road being needed in connection with the unequalled facilities of water transportation enjoyed by the town. Liberal aid will be given to persons who will locate industries here that give employment to labor and add value to raw material.

No matter what you intend to manufacture, consult the Waterloo Land, Mining & Manufacturing Co. and learn what facilities for the prosecution of your business the place enjoys and what inducements will be offered you to come. All questions truthfully and fairly answered.

For further information consult the President, Secretary or Hon. Hiram Richardson, Vice-President, Waterloo, Ala.



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Boomer & Boschert Press Co.
- Bankers & Brokers.**  
Alex. Brown & Sons.  
Wilson, Colston & Co.  
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Middendorf, Oliver & Co.  
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- Frederic Taylor & Co.**  
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R. Munroe & Son.  
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Alex. K. Rarig & Co.  
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J. H. Alexander.  
E. F. Landis.  
Chas. G. Eddy.  
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Commonwealth Cons. Co.  
Miller & Bierce.  
Simpkin & Hillier.  
Jas. P. Withrow.
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H. W. Caldwell.  
McLanahan & Stone.  
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Link Belt Engineering Co.
- Corrugated Iron.**  
Canton Steel Roof'g Co.  
Cincinnati Corrug. Co.  
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Holton Iron Roof'g Co.  
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Kanneberg Roofing Co.  
Cambridge Roofing Co.
- Cotton Gins.**  
Milburn Gin & Mch. Co.  
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C. H. Merry.
- Cotton Seed Oil Machinery.**  
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James Murray & Son.  
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Sigourney Tool Co.  
Syracuse Twist Drill Co.  
Bickford Drill Co.
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Sawyer-Man Elect. Co.  
Heisler Elec. Light Co.  
Southern Electrical Supply Co.
- Westron So. Electric Mfg. Co.**
- Electric Railway and Motors.**  
Thomson-Houston Electric Co.  
Brush Electric Light Co.  
Duff Electric Light Co.
- Electrical Engineers.**  
C. S. Van Nuis.  
W. H. Cole.
- Electrical Supplies.**  
Phoenix Incan. Lamp Co.  
Southern Electrical Supply Co.
- Elevators.**  
James Bates.  
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Morse, Williams & Co.  
Stokes & Parrish Mch. Co.  
Louisville Machine & Elevator Works.  
Emery Wheels.  
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Ball Engine Co.  
Buckeye Engine Co.  
Castle Engine Works.  
Chandler & Taylor.  
Fishkill Land'g Mch. Co.  
Frick Co.  
J. T. Foley & Co.  
W. A. Harris St. En. Co.  
Skinner Engine Co.  
Southward Foundry & Machine Co.  
Geo. W. Tift, Sons & Co.  
The J. T. Noye Mfg. Co.  
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Cleveland & Hardwick Westinghouse Mch. Co.  
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Warren Webster & Co.  
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David Boyle.  
Consolidated Ice Mch. Co.  
Louisville Machine & Elevator Co.  
Frick Co.  
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S. Florida Foundry & Machine Co.  
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- Insurance.**  
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- Insurance (Boiler).**  
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- Iron Working Machinery.**  
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Detrick & Harvey.  
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Lodge & Davis Machine Tool Co.
- Jacks.**  
Joyce, Criddle & Co.  
Jacks (Hydraulic) Watson & Stillman.
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- Laundry Machinery.**  
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The A. M. Dolph Co.
- Lubricants.**  
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Jos. Dixon Crucible Co.  
A. W. Harris Oil Co.
- Gas (Light & Fuel.)**  
Illum'g & Fuel Gas Co.
- Gauge Glass.**  
Bray & Nickerson Automatic Gauge Glass Co.  
Pancoast & Maule.
- Glass Cutting Tools.**  
Thos. J. Andrews.
- Grain Elevator Supplies.**  
H. W. Caldwell.
- Grate Bar.**  
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Springfield Glue and Emery Wheel Co.  
Waltham Emery Wl. Co.  
Northampton Emery Wheel Co.  
Norton Emery Wheel Co.
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M'Ilers Falls Co.
- Handle Mehry.**  
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Empire Port. Forge Co.  
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Thos. Devlin & Co.  
Fred. J. Meyers Mfg. Co.  
Van Wagoner & Williams Co.  
Udell Woodenw' Wks.  
Cronk Hanger Co.  
Wier & Wilson.  
Covert Mfg. Co.  
Empire Wringer Co.
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Esra F. Landis.  
Pierce, Butler & Pierce Mfg. Co.  
B. F. Sturtevant.
- Holsting Machinery.**  
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Diamond Prospect. Co.  
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Ryan & McDonald.  
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- Chain Hoist.**  
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- Rope Hoist.**  
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- Ice-Making Machinery.**  
David Boyle.  
Consolidated Ice Mch. Co.  
Louisville Machine & Elevator Co.  
Frick Co.  
Arctic Ice Mch. Mfg. Co.  
S. Florida Foundry & Machine Co.  
Ring Ref. & Ice Mch. Co.
- Ice Tools.**  
Peter Gerlach & Co.
- Injectors.**  
Felthousen & Sherwood
- Insulated Wires & Cables.**  
Onkote Co.  
Southern Electrical Supply Co.
- Insurance.**  
Employers' Liab. Assurance Corporation.  
Edw. A. Swain.
- Insurance (Boiler).**  
Hartford St. Boiler Insp. and Insurance Co.
- Iron Working Machinery.**  
E. Harrington, Son & Co.  
Detrick & Harvey.  
E. E. Garvin & Co.  
Lodge & Davis Machine Tool Co.
- Jacks.**  
Joyce, Criddle & Co.  
Jacks (Hydraulic) Watson & Stillman.
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Jos. Dixon Crucible Co.  
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E. B. Hunting & Co.
- Locomotives.**  
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H. K. Porter & Co.  
Baldwin Loco. Works.
- Machinery.**  
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Southern Equip't Co.  
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Knoxville Car Whl. Co.  
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Birdsall Co.  
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S. Morgan Smith.  
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- Silver & Deming Co.**
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D. F. Seyfert.  
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- Machinists' Supplies.**  
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Hetherington & Nason.
- Mill Engineers.**  
C. R. Makepeace & Co.  
Lockwood, Greene & Co.
- Mill Stones.**  
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Milner & Kettig.  
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James Smith & Co.  
R. Swormstedt & Co.
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Ingersoll-Sergeant Rock Drill Co.  
Diamond Prospecting Co.  
Wiswell Electric Mini'g Machinery Co.  
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Rand Drill Co.  
Jeffrey Mfg. Co.  
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- Pipe Handling Tools.**  
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- Plumbers' Supplies & Tools.**  
Milner & Kettig.  
Haines, Jones & Cadbury Co.  
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- R. Swormstedt.**
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- Todd Pul. & Shaft. Wks.**
- Jno. N. Marquette.**
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Wheeling & Lk. E. Ry.  
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- Railroad Equip't and Supplies.**  
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Robinson & Orr.  
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Humphreys & Sayce.  
N. Y. Equipment Co.  
Carlie Mfg. Co.  
Richmond Loc. & Mch. Wks.  
H. K. Porter & Co.  
The Jno. Stephenson Co. (Limited.)  
Penna. Steel Co.  
Baldwin Locomo. Wks.  
Hetherington & Nason.  
Palmer, Cunningham & Co.  
Wm. Minnigerode.  
Alfred W. Ladd.  
F. A. Estep.  
Lowe & Tucker.  
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J. H. Wiley.  
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Foudry & Mch. Depart. of Har'bg Car Mfg. Co.
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Empire Paint & Rfg. Co.  
Canton Steel Roof'g Co.  
Globe Iron Roofing and Corrugating Co.  
Kanneberg Roofing Co.  
Holton Iron Roofing Co.  
Cambridge Roofing Co.
- The Berger Mfg. Co.**
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- Druid Felt Co.**
- Merchant & Co.**
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Waterbury Rubber Co.
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Peter Gerlach & Co.  
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Henry Dinton & Sons.  
The Detroit Saw Wks.
- Saw Gummer.**  
N. Y. Belt'g & Pack. Co.
- Saw Filer and Gummer.**  
Sam'l. C. Rogers & Co.
- Saw Mill Machin'y.**  
Frick Co.  
De Loach Mill Mfg. Co.  
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A. C. Powell & Son.
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Hubbard & Co.
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H. L. Beach.
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Stiles & Parker Press Co.
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Belden Machine Co.  
Bradley & Co.  
Southward Found. and Machine Co.  
Knoxville Car Whl. Co.
- Steam Pumps.**  
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Hughes Steam Pump Co.  
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Valley Pump Co.  
Dean Bros. Stm. P. Wks.  
Blakeslee Mfg. Co.  
The Laidlaw & Dunn Co.  
Geo. F. Blake Mfg. Co.  
The A. S. Cameron Stm. Pump Works.  
Southward Foundry & Machine Co.  
Davidson Stm. P. Co.  
The Smith & Vaile Co.  
Buffalo Stm. Pump Co.  
The J. H. McGowan Co.  
Rife's Hydraulic Engine Mfg. Co.  
Rumsey & Co., (Lim.)  
Boggs & Clarke.
- Steam Separator.**  
The Stratton Separ. Co.
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Bookwalter Casting Co.
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- Tackle Blocks.**  
Thos. Devlin & Co.  
Fulton Iron & Eng. Wks.
- Tanks and Vats.**  
Amos H. Hall.
- Testing Machines.**  
Standard Scale Co.  
Richie Bros.
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Jeremiah Clark.  
L. Godfrey & Co.
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Cleveland Tw. Drill Co.  
Sigourney Tool Co.  
E. E. Garvin.  
Lath & Morse Tool Co.  
E. Harrington, Son & Co.  
Lodge & Davis Machine Tool Co.  
Sebastian, May & Co.  
Thos. K. Carey & Bros.  
Prentiss Tl. & Sup. Co.  
Fulton Iron & En. Wks.  
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Syracuse Tw. Drill Co.  
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W. F. & Jno. Barnes Co.  
Hamden & Maule.  
Standard Tool Co.  
Bridgeport Gun Imp. Co.
- Towns.**  
Sumter, S. C.  
New Bern, N. C.  
Charlottesville, Va.  
Anniston, Ala.  
Florence, Ala.  
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Sheffield, Ala.  
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Fort Payne, Ala.  
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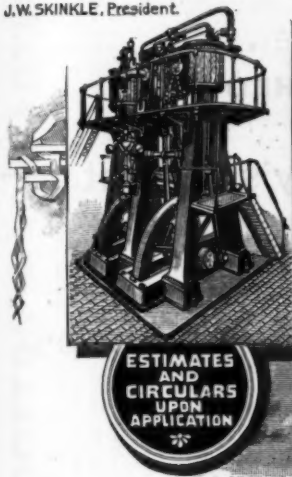
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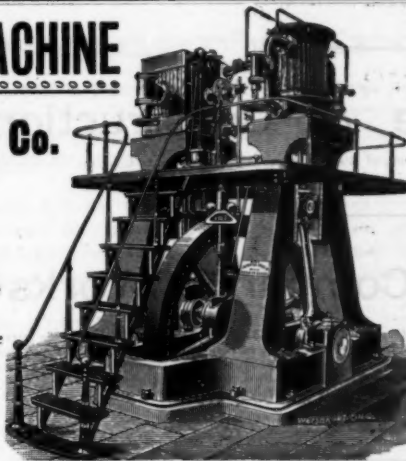
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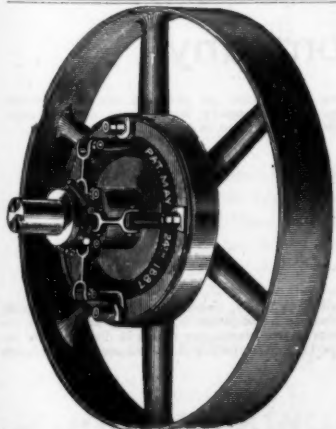
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diameter. Send for Catalogue.

**TODD PULLEY AND SHAFTING WORKS**  
EAST ST. LOUIS, ILL.

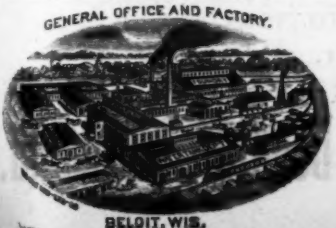
*Advertise in the Manufacturers' Record.***ECLIPSE FRICTION CLUTCH PULLEYS AND CUT-OFF COUPLINGS.**

SEATTLE, WASHINGTON TER., 5 26, 1889.

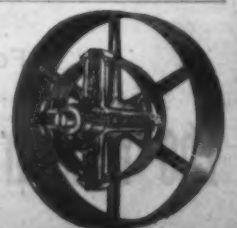
Eclipse Wind Engine Co., Beloit, Wis.  
DEAR SIR: The Clutch Pulley (diam. 100 in.; face 31 in.)  
works satisfactorily in every particular, and is a great  
convenience. We have two, and can stop either the main  
saw or the gang edger, or both whenever desired, without  
stopping the engines. Yours respectfully,  
Yesler Wood, Coal & Lumber Co.,  
J. D. Lowman, Secy.

**ECLIPSE WIND ENGINE CO., - Beloit, Wis.**

Send for July, 1889 catalogue, and see where and by whom they are used.



BELOIT, WIS.



St. JOSEPH, MO., June 24, 1889.  
Eclipse Wind Engine Co., Beloit, Wis.  
GENTLEMEN: The Clutch Pulley reached us all right;  
it works to a charm. If we had put it on last April, in  
place of one we had, we should now be ahead over \$400,  
which we have lost in time and breakages. Yours,  
The Brick & Terra Cotta Mfg. Co.,  
F. F. Hailey, Sec'y.

# NEW DECATUR,

## ALABAMA.

### The New Industrial City of the Great Tennessee Valley.

#### DESCRIPTION OF ENTERPRISES ALREADY ESTABLISHED:

##### 1. The United States Rolling Stock Company's Plant.

For full description see back numbers of the "Record"—June 1, 8, 15, 22, 29.

##### 2. The Louisville & Nashville Railroad Company's Shops.

For full description see back numbers of the "Record"—July 6, 13, 20, 27; August 3, 10.

##### 3. The Southern Horse Nail Company.

##### 4. The Decatur Iron Bridge & Construction Company.

For full description of Nos. 3 and 4 see back numbers of August 17, 24, 31 and September 7, 14, 21.

##### 5. The Ivens & Son's Machine Company's Works and Foundry.

These works, covering about four acres, are located near the new passenger depot at New Decatur, with a frontage of about 500 feet on the Louisville & Nashville Railroad, and switch tracks for loading and unloading. They will shortly have a similar frontage on the Memphis & Charleston division of the East Tennessee, Virginia & Georgia Railroad, the line of which road is about to be changed so as to pass through New Decatur as well as Decatur proper, with freight yards in New Decatur. The main building, which is an imposing structure of brick and stone, with metal ventilating roof, contains the machine shop,

foundry, blacksmith shop, boiler room and offices, the latter being in the centre and three stories high, with a cupola. The wood-working and pattern shop is in a separate building. The boiler works are as yet incomplete. The specialties manufactured by this company are engines of various descriptions, particularly the Ivens self-contained engine for ginning and baling cotton; also improved cotton baling presses and machinery for the irrigation and for the drainage of land.

##### 6. The Decatur Electric-Light & Power Company.

The admirable plant lately constructed for this company by the Thomson-Houston Electric Company consists of a brick building, 60x80 feet, with metal roof. The machinery consists of three dynamos, boilers of 100 horse power, a 100 horse-power high speed Corliss engine, and

a 60 horse-power Ball engine. The plant is running at present 50 arc and 600 incandescent lights, but has the capacity for doubling this quantity. The company has erected already eight miles of poles and wires. It is unquestionably the finest electric light plant in Alabama at this time.

##### 7. The Decatur Water Company.

A splendid system of water works has been constructed for this company by Howland & Ellis, the well-known firm of engineers at Boston. They have laid already 22 miles of pipe. The water is obtained from the Tennessee river, the connection with the pump-house being a 30-inch cast-iron conduit leading from the pump-well, under the bed of the river, to deep water in mid-channel. The buildings at the pumping station, near the river, consist of an expensive circular brick pump-house, 54 feet in diameter, and a brick

boiler-house 45x80 feet. The machinery is of 2,500,000 gallons capacity, consisting of duplex, condensing engines, with air boiler-feed and drain pumps, etc., and four 90 horse-power boilers. In addition to the direct pressure from the pumps, pressure is obtained also from an iron stand pipe 20 feet in diameter and 120 feet high, situated on an elevated site in one of the public parks, and supported on an ornamental foundation of masonry.

For Maps, Pamphlets and other Information about New Decatur, address

**The Decatur Land, Improvement & Furnace Company, New Decatur, Alabama.**



Ex-Mayor ABRAHAM S. HEWITT, of New York, says this section of Alabama "is the only place upon the North American Continent where it is possible to make iron in competition with the cheap iron of England."

# BUSINESS POINTS

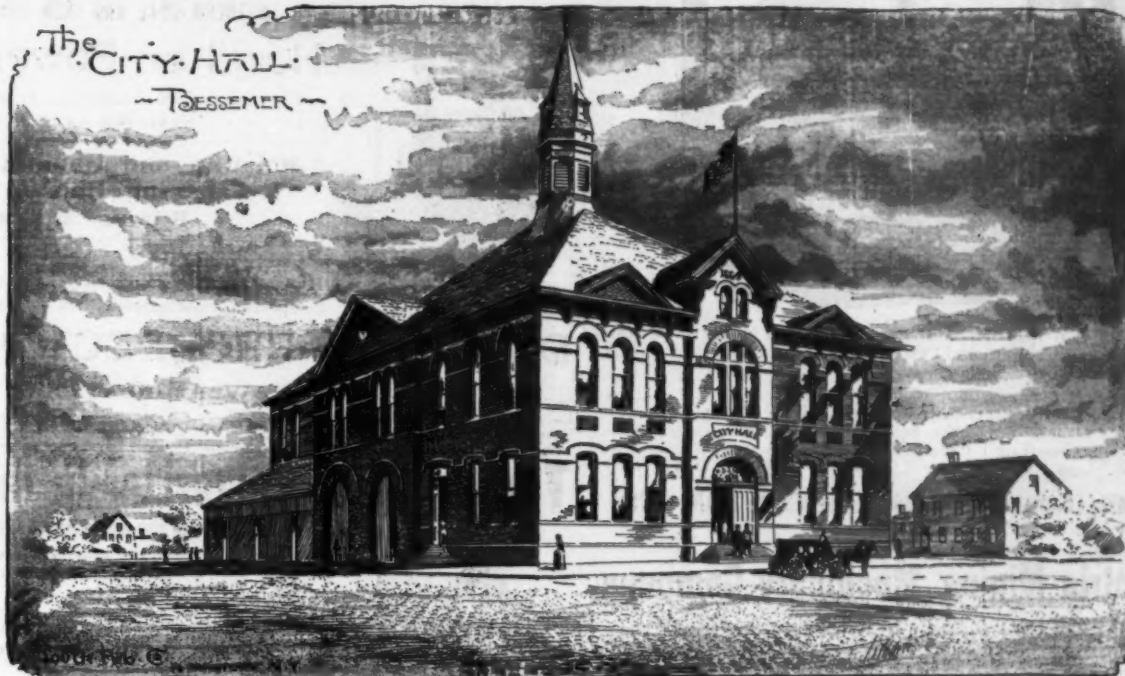
ABOUT

## BESSEMER CITY, ALA.

WORTH CONSIDERING BY BUSINESS MEN.

### COTTON MANUFACTURING.

With the Cotton growing near the mill; at the present cost of spindles in position; spacious sites costing nothing; coal delivered to mills at \$1.35 per ton; modern steam machinery with its minimum consumption of fuel, Bessemer offers marked advantages.



The Land Company offers on leases for five or ten years, with very liberal terms, One Hundred Farms, 5, 10 and 15 Acres each, and will erect cottages and put up fencing; but only to parties who have, by experience, been successful in these branches of business. Don't want any inexperienced experimenters on any terms.

### 100 Fruit, Truck and Dairy Farms.

## Bessemer's Iron Foundations.

**First.—The DeBardeleben Coal & Iron Company**—Two furnaces in blast; two batteries of 170 coke ovens each—340. Extensive coal and iron mines, limestone rock, etc., in active operation. Furnaces situated within the city limits, occupying 160 acres of land—enough for multiplied extensions. Average output 225 tons daily.

**Second.—The Bessemer Steel & Iron Company** Two furnaces go in blast December, 1889; two batteries of 200 coke ovens each. Extensive coal and iron mines, limestone rock, etc., in active operation. Furnaces situated within the city limits, occupying 100 acres of land—enough for multiplied extensions. Average output 225 tons daily.

**Third.—The Little Belle Iron Company**—To go in blast December, 1889. One charcoal furnace, situated within the city limits, occupying 50 acres of land, enough for multiplied extensions. Average output 60 tons daily.

**Fourth.—The Bessemer Rolling Mills**—Situated within the city limits, occupying 18 acres of land. When running full works 700 hands. One hundred tons possible daily output.

**Fifth.**—In addition to the coal and iron mines above referred to, in connection with the five furnaces, these proprietors own the **MAGNETIC ORE LAND COMPANY**. The total coal, iron and limestone lands owned by these corporations amount to over

**200,000 ACRES.**

The **EARLIEST SELECTED** and choicest lands in Alabama, all directly tributary to the City of Bessemer; representing, with furnaces, rolling mills, etc., an aggregate of \$8,000,000, not including other lines of business.

Iron Manufacturers in Bessemer will have a direct advantage of \$2.50 to \$3 per ton on the cost of Pig Iron, compared with Pennsylvania Prices.

## TRANSPORTATION EVERYWHERE UNEXCELLED.

The Queen & Crescent Line—Cincinnati to New Orleans.

The Louisville & Nashville Lines.

The Georgia Pacific and Danville Lines.

The Kansas City, Memphis & Birmingham Line.

The Birmingham & Bessemer Railroad runs trains every hour to Birmingham.

The Bessemer & Huntsville is completed as far as Chepultepec.

The Bessemer & Tuscaloosa is completed to Woodstock, a distance of thirty miles, lacking only eighteen miles of reaching Tuscaloosa.

The Bessemer & Selma has been surveyed and grading will soon commence.

The Mobile & Bessemer, an extension of the East Tennessee, Virginia & Georgia, is in process of rapid construction.

The Sheffield & Bessemer is projected to Bessemer. It is now built as far as Jasper, forty miles northwest.

The Birmingham, Powderly & Bessemer Street Railway, Bessemer to Birmingham, will be running by November 1st, half the line being now graded.

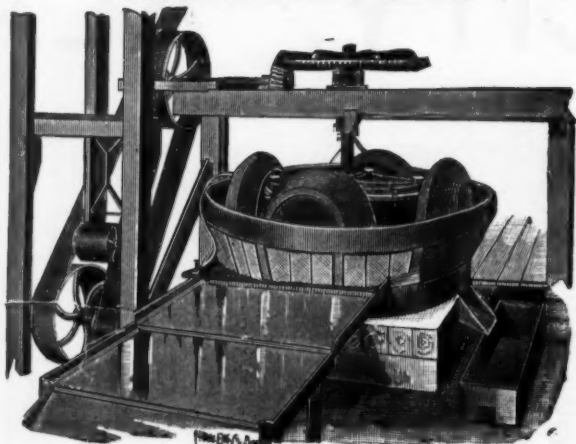
**WOOD-WORKING INDUSTRIES**—The primeval forests of Alabama, tributary to Bessemer, offer manifold attractions to Wood-Working Manufacturers.

**CORRESPONDENCE SOLICITED.** For particular information as to price of lots, manufacturing sites and inducements to establishing plants in this unrivalled locality, address

H. M. McNUTT, Secretary.

*H. M. McNutt*  
President

# WISWELL Ore Pulverizer and Amalgamator COMBINED.



The following testimonial from Mr. Marsden, of the firm of Farrel & Marsden, manufacturers of Stone Breakers and Ore Crushers, Ansonia, Conn., speaks volumes for the Wiswell Mill:

Wiswell Electric Mining Machinery Co.:

GENTLEMEN—After carefully inspecting your mill and seeing it in operation, I do not hesitate to say that it is one of the best, if not the best pulverizer and most complete gold-saving machine I have ever seen. Please accept congratulations for your success.

S. L. MARSDEN.

WE FURNISH A COMPLETE MILL FOR \$2,500, DELIVERED ON BOARD CARS.

FOR FURTHER INFORMATION ADDRESS

**Wiswell Electric Mining Machinery Company,**

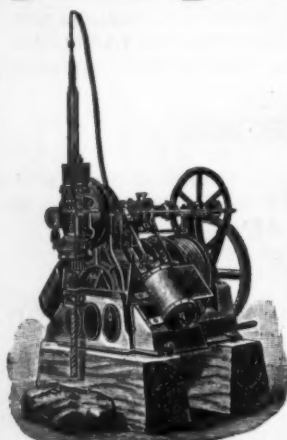
4 POSTOFFICE SQUARE,

A. A. REEVE, Treasurer.

BOSTON, MASS.

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## Bullock's Diamond Prospecting Core Drills,



Diamond Prospecting Drill.

For Surface or Underground Prospecting.

The Only Drills that will give an Accurate Record of every Strata Penetrated.

ALL DRILLS SOLD WITHOUT RESTRICTIONS.

**Lane's Band Friction Hoisting Machinery**

Drums from 2 Feet to 25 Feet in Diameter.

**Improved Corliss Engines,**

Slide Valve and Straight Line Engines,

**Eclipse Rock Drills, Air Compressors,**

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**M. C. BULLOCK MFG. CO.**

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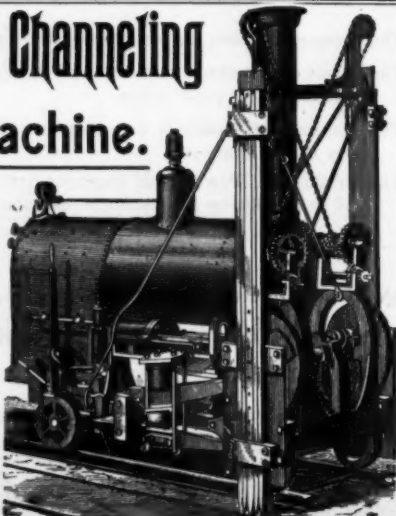
Write for what you want. CHICAGO.

Cable Address: BULLOCK, CHICAGO.

## THE Wardwell Stone Channeling AND Quarrying Machine.

WILL pay for itself in a short time in reduced cost of getting out Stone. Has no equal for efficiency and economy of operation. Pronounced by those who have used it the best machine for the purpose in the world. Send for illustrated catalogue, with full descriptions and letters from parties now using the machines.

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RUTLAND, V. MONT.



## SULLIVAN DIAMOND Prospecting Core Drills.

THE MOST RELIABLE AND  
SATISFACTORY MADE FOR PROSPECTING FROM THE  
SURFACE OR UNDER GROUND.



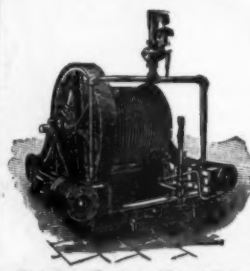
RAPID! ACCURATE! ECONOMICAL!

"N" Drill—Capacity 2,000 feet.

SPECIALLY ADAPTED TO SOUTHERN COAL AND IRON FORMATIONS.

**Hand or Power Drills,**

Capacities 300 to 4,000 feet. All sizes in stock.  
SEND FOR CATALOGUE.



Hoisting Engine—Class "D."

**Hoisting and Hauling Engines,  
Exploring Hoists, Steam  
Pumps. Boilers.**

Underground Haulage by Wire Rope a specialty.  
Estimates furnished on complete plants. Contractors for  
prospecting mineral lands with the Diamond Core Drill.

**DIAMOND PROSPECTING CO.**

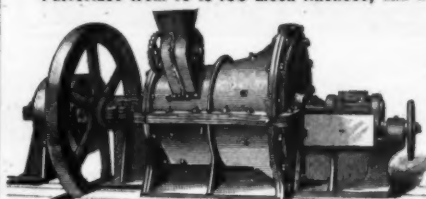
74 and 76 W. Lake Street,

Eastern Office, 16 Broadway, New York.  
Cable Address, "DIAMOND, CHICAGO."

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## The Greatest Pulverizer in the World.

Pulverizes from 10 to 160 mesh fineness, and has a capacity of 1 to 3 tons per hour.



Better than buhr mills for pulverizing  
Phosphates, Plumbago, Cement, Foundry  
Facings, Iron for Paints, Gold and Silver  
Ores, Flint Rock for Glass, Coke for Car-  
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Red Ochre, Sandstone, Limestone and  
Calcined Lime. Correspondence solicited.  
Send for samples of different products.

**F. H. MOORE,**

Manufacturer,

48 City Hall Bldg., Cleveland, O.

## Gates Rock and Ore Breaker

CAPACITY IN TONS OF 2,000 POUNDS.

Size 0—2 to 4 tons per hour	Size 4—15 to 30 tons per hour
" 1—4 to 8 "	" 5—25 to 40 "
" 2—6 to 12 "	" 6—30 to 60 "
" 3—10 to 20 "	" 7—40 to 75 "
	" 8—100 to 150 "

Passing 2 1/2 in. ring, according to character and hardness of material.

Great SAVING IN POWER. Adjustable to any Degree of Fineness.

The principle involved in this Breaker acknowledged to be the greatest success ever introduced into Stone Breaking Machinery.

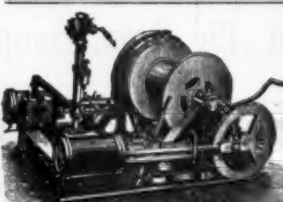
Send for Catalogue, containing over 500 references of Contractors, Miners, Railway Companies, Cement Makers, etc.

**GATES IRON WORKS,**

50 S. CLINTON ST., CHICAGO, U. S. A.

12 Cortlandt St., New York, U. S. A.

73 a Queen Victoria St., E. C. London, Eng.



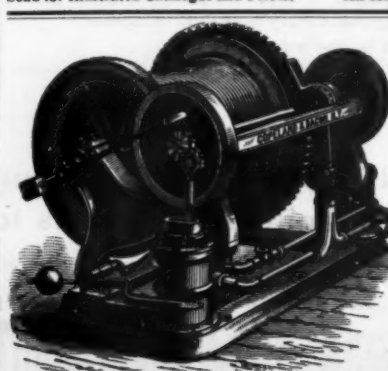
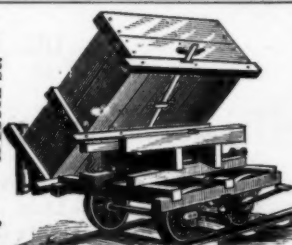
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**BACON** WINDING ENGINES,  
FURNACE HOISTS,  
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(With or Without Boilers.)

"MINING PLANTS," Concentrating  
Works and Dredging Machinery  
Furnished Complete.

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# Improved Eureka Dry Press Brick Machine.

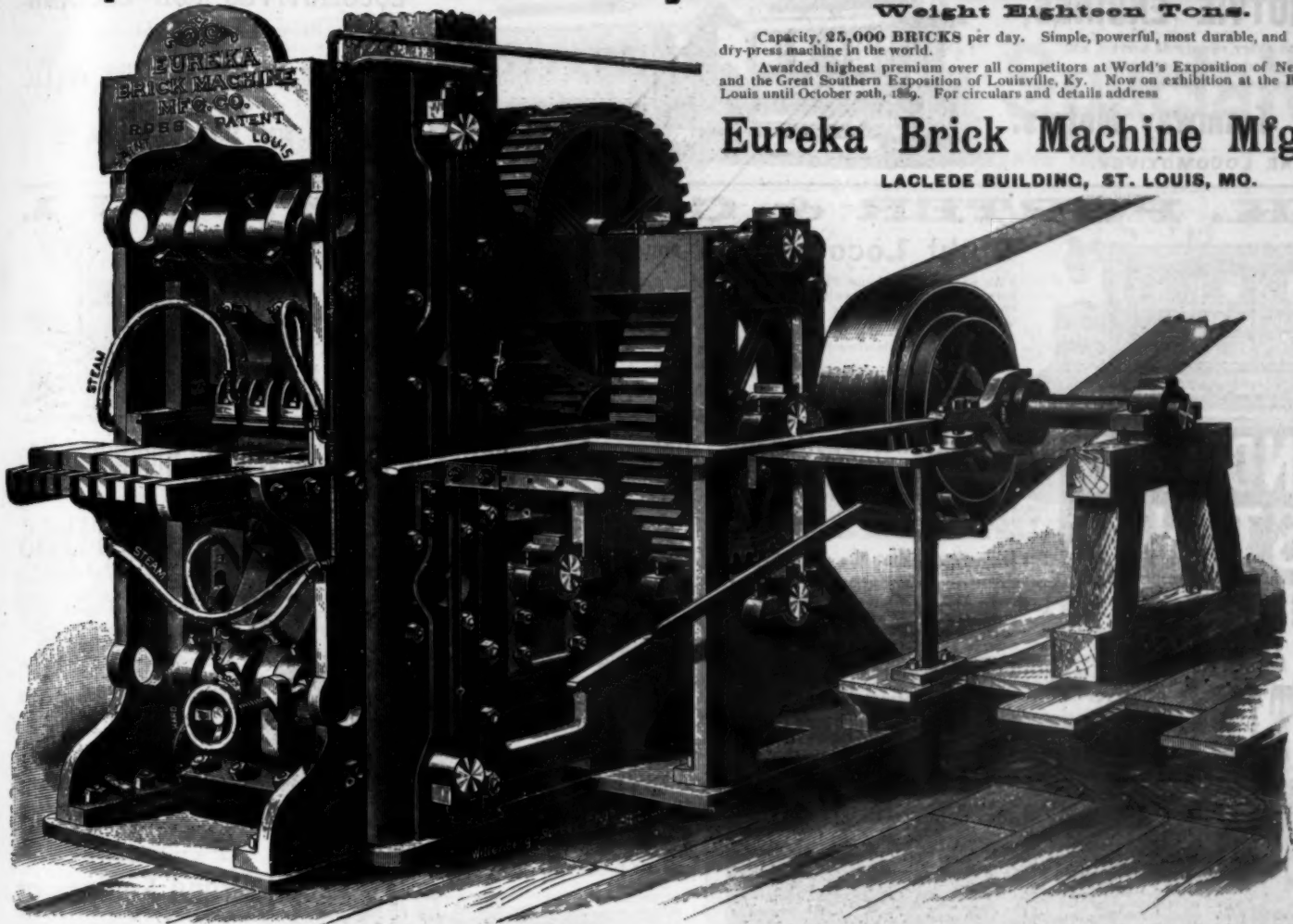
Weight Eighteen Tons.

Capacity, 25,000 BRICKS per day. Simple, powerful, most durable, and superior to any dry-press machine in the world.

Awarded highest premium over all competitors at World's Exposition of New Orleans, La., and the Great Southern Exposition of Louisville, Ky. Now on exhibition at the Exposition in St. Louis until October 20th, 1899. For circulars and details address

**Eureka Brick Machine Mfg. Co.**

LACLEDE BUILDING, ST. LOUIS, MO.



## BRICK • MACHINERY.

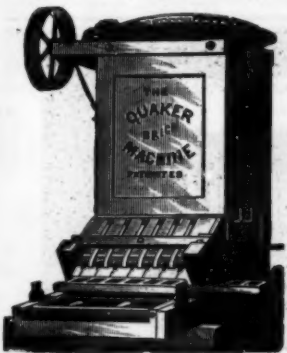
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is the best and most reasonable in price of any first-class Brick Machine made. Send for illustrated catalogue, giving full particulars and prices before purchasing.

Both Horse and Steam Machines.

PUG MILLS, MOLD SANDING MACHINES, MOLDS, BARROWS, AND ALL BRICKMAKERS' SUPPLIES.



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15,000, 25,000, 50,000 per day Capacity.

GUARANTEED AND FURNISHED ON THIRTY DAYS' TRIAL.

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Blast Furnace, Rolling Mill and Heavy Castings and Machinery for all purposes.

**ORE JIGS, IMPROVED ORE WASHERS,**  
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Complete Plants for washing HEMATITE ORES at Least Cost.

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Machinists, Founders, Engines, Shafting, Pulleys, &c.

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WE TEST ALL CLAYS SENT PREPAID FREE.



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Established 1831.

**BALDWIN LOCOMOTIVE WORKS.**

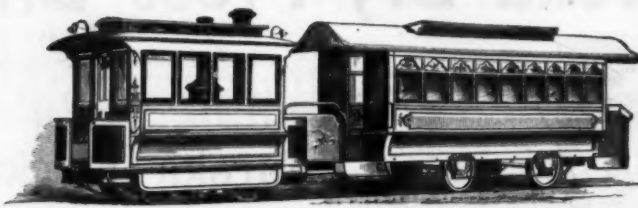
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**LOCOMOTIVE ENGINES,**

Adapted to every variety of service, and built accurately to standard gauges and templates.

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MINE LOCOMOTIVES.

**LOCOMOTIVES FOR LOGGING**

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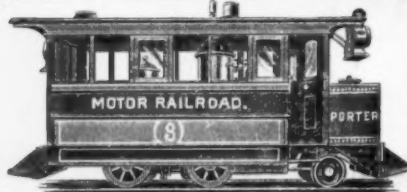
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All gauges of track for Passenger and Freight Service, Logging Railroads, Mines, Blast Furnaces, Steel Works, Coke Ovens, Contractors' Work and Plantations.

All sizes and patterns, adapted to steep grades and sharp curves. Noiseless and smokeless. Cheaper and more reliable and efficient, and less objectionable than electric or cable system.

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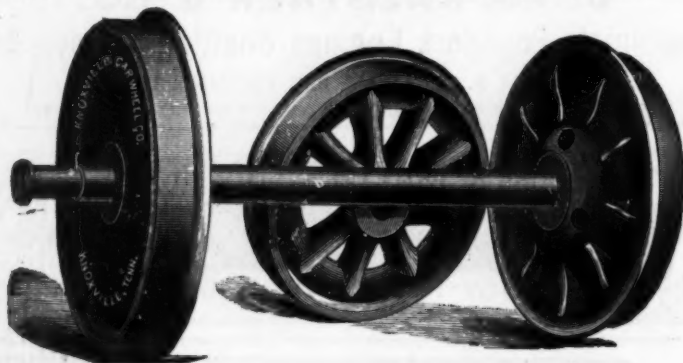
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Manufacturers of All Kinds of

**CHILLED WHEELS**

For Railroads, Street Railroad, Ore and Coal Mines, and Lumbermen.



Steam Hammers,  
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Derricks, Crabs,  
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Steel and Iron Boilers,  
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Wheels mounted on Axles if  
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and Bolts.

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Builders of

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for every variety of service to Standard Designs or to meet views of purchasers.

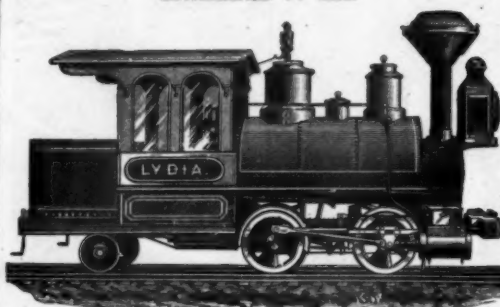
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for Street Railways, Tram Roads and Mines.

Stationary Engines for heavy duty.

**BOILERS,**

Standard or Special. Send for Catalogues, Specifications and Estimates.

**DYOTT & CO. 52 WALL STREET, NEW YORK****Railroad Equipment**

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Locomotives, Cars, Rails,

FASTENINGS, SPIKES, ETC.

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Securities negotiated. Contracts taken.

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**STEPHEN W. BALDWIN**  
SALES AGENT**STEEL COMPANY**

50 to 80 lbs. per yard

16 " 45 " " "

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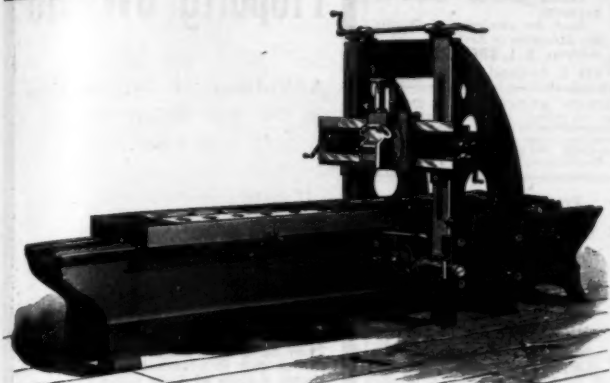
Bolts & Nuts,  
and Crossings.**NO. 2 WALL STREET**  
NEW YORK N.Y.

16 lbs. Full Size.



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## Planers a Specialty.



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*Strictly First-Class. Moderate Prices. Perfection of Workmanship.*

*Positive Feed. Quick Return. Extra Heavy.*

*Large Bearings. The Smoothest Running Planers.*

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**Best Anti-Friction Metal**

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Steamship, Car and All Machinery Bearings.

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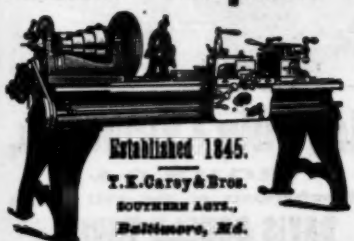
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THE PHOSPHOR BRONZE SMELTING CO. LIMITED

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MACHINE TOOLS GENERALLY

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MANUFACTURERS OF  
DIES MADE IN 5  
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TO 2 INCHES V  
U.S. STANDARD AND  
DROP FORGED

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CONN  
SCREW PLATES AND  
SIZES CUTTING  
OF AN INCH  
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WHITWORTH THREAD  
OF BAR STEEL

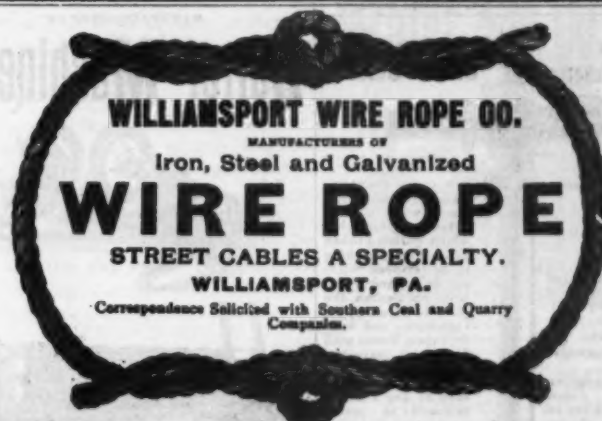
## Chattanooga Paint Company. CHATTANOOGA, TENN.

Manufacturers of the

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**WIRE ROPE**

STREET CABLES A SPECIALTY.

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—AND—

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**Machine and Car Bolts.**

Keystone Boiler Rivets made in Solid Dies.

Cold Punched, Chamfered, Trimmed and Drilled, Square and

HEXAGON NUTS.

Bridge Rivets,  
Split and  
Single Keys.

WASHERS,  
Tank and Coopers'  
RIVETS.

ESTABLISHED 1832 ON PRESENT PREMISES.

The Best  
—IS—  
ALWAYS  
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Cheapest.



Therefore  
BUY OUR  
**COLOPHINE**  
—OR—  
Perfect Oils

The above are our specialties in MACHINERY OILS, and are the best oils for the price manufactured. We can give you anything in the OIL LINE, any grade, at the very lowest prices. Correspondence solicited.

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MANUFACTURERS AND DEALERS IN OILS,

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MANUFACTURERS OF

**Self-Dumping Steel & Iron  
Hoisting Tubs,**Side and Bottom Dumping  
Cars for Coal Elevators,  
Iron Wheelbarrows, Hoisting  
Blocks, Bottom-dumping Tubs  
for Coaling Locomotives, &c.

LONG ISLAND CITY, N. Y.

Send for circular and price-list.

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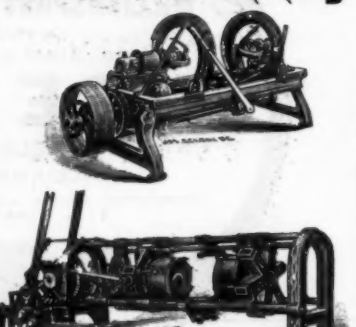
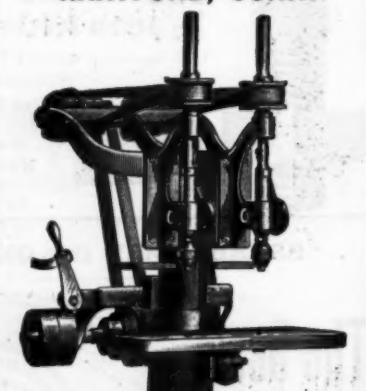
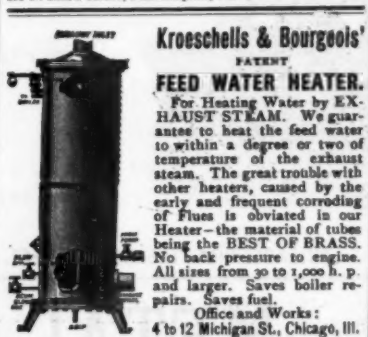
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**VERTICAL AND HORIZONTAL  
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OF ANY DESCRIPTION.  
**CASTINGS & FITTINGS**  
OF ALL KINDS.Satisfaction guaranteed. Correspondence solicited.  
C. J. O'HARA, General Manager.**THE  
Bray & Nickerson  
AUTOMATIC  
GAGE GLASS**Positive in Action  
Simple in  
Construction.  
Easily Attached  
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Thoroughly Tested.  
Guaranteed in  
Every Particular.BLY CLOSE INSTANTLY  
on breaking the  
glass, with stuffing  
boxes for glass tubes  
which permit broken  
glasses and packing  
to be removed with-  
out delay, and which  
will not cause the  
glass to break by its  
expansion, and with  
first class Valves with  
Babbitted seats and  
stuffing boxes with  
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may at any time be  
removed to reset  
while steam is on.Agents  
Wanted.Bray & Nickerson Automatic Gage Glass Co.  
34 Oliver Street, Boston.**EMERY WHEEL TOOL GRINDER.**55 Styles and  
Sizes of  
Emery Wheel  
Grinders.SPRINGFIELD  
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field,  
MASS.Write for Il-  
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Will ship  
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1883.The Grinding is done so rapidly that they will pay  
for themselves every year over grinders as a gift.**ROLLER and  
Detachable Chain Belting,**Detachable in Every Link,  
FOR IMPROVED**ELEVATORS,  
CONVEYERS,**AND  
Driving Belts  
FOR HANDLINGCoal, Ores, Grain,  
CLAY, BRICK, &c.ADDRESS  
**The Jeffrey Mfg. Co.**121 W. STATE ST.  
Columbus, O.Also manufacturers of the  
Legg Coal Mining Machines  
and Rotary Power Coal  
Drill. Send for Illustrated  
Catalogue.**WHICH? BUTTER OR  
CHEESE.**If either, or both, send for  
**J. S. CARTER'S Illustrated**  
Catalogue, which gives full in-  
formation of latest and best method  
and appliances for making Cheese  
or Butter, from the largest fac-  
tory to the smallest dairy.  
Carter's Cream & Buttering  
System of Butter Making is a success.  
**JOHN S. CARTER, Syracuse, N. Y.****R. M. JOHNSON,  
WHEATLAND, VA.**Manufacturers' Agent and Dealer in Corliss,  
Automatic Cut-off and Plain Slide Valve**Steam Engines and Boilers.**Saw Mills, Machinists' Tools Wood-working  
Machines, Mining, Brick, Ice, Grist Mill, Can-  
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Complete Outfits Supplied at Lowest Prices.  
Correspondence solicited.**E. & B. HOLMES,**

BUFFALO, NEW YORK,

MANUFACTURERS OF

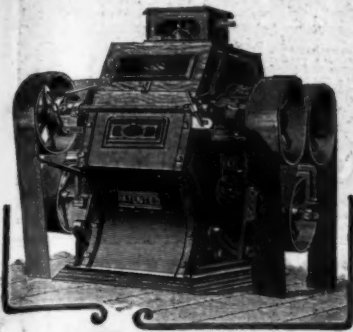
**Barrel Machinery.****Chambers Patent Barrel Heater.**Capacity, 300 tight or 500 slack barrels per day.  
The best Heater made.**E. & B. HOLMES, Sole Agents.****THE  
Sigourney Tool Co.  
HARTFORD, CONN.****One, Two and Three  
Spindle  
DRILLS.****Sensitive,  
STRONG  
—AND—  
Workmanship  
UNEQUALLED.****Special Machinery, Tools, Models, &c.**  
Built by Day or Contract.  
**THOS. L. BARRY & BROS., AGENTS, BALTIMORE.****BERNHARD DIETZ, Manufac-  
ture of Printers' Rollers**  
and Roller Composition. Factory, N. E. Cor. Grant  
and Mercer Sts., Baltimore. Prices: Composition (bulk)  
30 cents per pound; for casting, also 30 cents per pound.  
Orders by mail promptly attended to.**SHEPARD'S New \$80 SCREW-CUTTING FOOT LATHE**Foot and Power Lathes, Drill  
Presses, Scroll Saw Attachments,  
Chucks, Mandrels, Twist Drills,  
Dogs, Calipers, etc. Lathes on  
payment.  
Send for catalogue of Outfits  
for Amateurs or Artisans.  
Address **H. L. SHEPARD, Agent,**  
134 E. 2d Street, Cincinnati, Ohio.**WEBSTER'S "VACUUM" EXHAUST STEAM ECONO-  
MIZER** utilizes the exhaust for heating buildings,  
&c., returning the condensation to boiler, and for making  
hot and purified water for boiler feeding and other pur-  
poses. Send for pamphlet. **WARREN WEBSTER & CO.,**  
401 N. Third Street, Philadelphia, Pa.**Kroeschells & Bourgeois'****PATENT  
FEED WATER HEATER.**For Heating Water by EX-  
HAUST STEAM. We guar-  
antee to heat the feed water  
to within a degree or two of  
temperature of the exhaust  
steam. The great trouble with  
other heaters, caused by the  
early and frequent corroding  
of Flues is obviated in our  
Heater—the material of tubes  
being the BEST OF BRASS.  
No back pressure to engine.  
All sizes from 30 to 1,000 h. p.  
and larger. Saves boiler re-  
pairs. Saves fuel.  
Office and Works:  
4 to 12 Michigan St., Chicago, Ill.**The Wainwright Corrugated Copper Tube  
Heater. Over 60,000 in use.**Highest results ob-  
tained with exhaust  
steam alone without  
back pressure.  
The most care-  
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Heater in the  
market.Coil, Vertical  
and Horizontal  
Straight Tube Heat-  
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compound Condens-  
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pansion Joints, Fil-  
ters and Condensers.  
Prices very low.  
Heaters construct-  
ed of Cast Iron and  
Steel Shells, Cop-  
per Tubes, Brass  
Connections. No  
Wrought Iron to  
rust out. Send  
for new illustrat-  
ed catalogue.**THE  
Wainwright Mfg. Co.  
OF MASS.**  
Factory, Medford,  
34 Oliver St., Boston.  
F. B. ASPENWALL, Mgr., 135 Liberty St., New York.  
FAIRBANKS & CO., Mgrs., 701 Arch St., Phila., Pa.  
H. S. WALKER, Mgr., 8 & 10 S. Canal St., Chicago, Ill.**Powell's  
"STAR"****Globe Valve.**The best and most eco-  
nomical valve in the mar-  
ket. For sale by  
**Thos. C. Basshor & Co.**  
Light Street,  
BALTIMORE, MD.And Dealers  
everywhere.Manufactured  
by the  
**WM.  
Powell  
CO.****UNION BRASS WORKS,  
211 W. 12TH ST.,  
ERIE, PA.****TAPER-SLEEVE PULLEY WORKS**211 W. 12TH ST.,  
ERIE, PA.Manufacturers of  
Taper-Sleeve Wood  
Belt Pulleys, Adjust-  
able Dead Pulleys,  
Friction Clutch Pul-  
leys, Friction ClutchCouplings, Wood  
Pulleys in Halves,  
Taper-Sleeve and  
Compression Cou-  
plings, Shafting, Post  
and Drop Hangers.  
Correspondence so-  
licited.  
**Friction-Clutch Pulley.****Property Owners****A Volume of Information  
On Tin Roofs Free  
of Cost.**If you have decided to place a tin roof  
upon your house you should, in justice  
to yourself, obtain the best possible in-  
formation in regard to tin for roofing  
purposes. No property owner can af-  
ford to remain ignorant, when a whole  
volume of information devoted to the  
selection, laying and painting of a tin  
roof can be had for the asking. Messrs.  
Merchant & Co., of this city, are con-  
ceded to be authority on tin roofs.  
They have devoted much time, labor  
and money in presenting, in readable  
shape, a mass of facts upon this sub-  
ject, which are of great interest to prop-  
erty owners. The constant inquiry from  
property owners for these books evinces  
the fact that there is considerable quiet  
thinking being done just now by a large  
number of gentlemen, who have hereto-  
fore given the subject very little con-  
sideration. What the outcome will  
be, almost anyone can anticipate. A  
better class of roofing is sure to follow  
as a natural consequence. A wise prop-  
erty owner will send for Merchant &  
Co.'s new book; and, after reading it,  
he will certainly conclude that there  
was much that he did not know upon  
the subject of tin roofs.—Philadelphia  
Real Estate Record, Sept. 11, 1889.**The Belden Machine Co.  
NEW HAVEN, CONN.**Costs Less for Repairs;  
Occupies Less Space;  
Requires Less Power.And in every particular Beats the World.  
DROP FORGINGS TO ORDER.  
Send for Circular.  
Improved Upright Power Hammer.**Rome Foundry & Machine Works,  
ROME, GA.**

Manufacturers of the well known

**DAVIS DOUBLE TURBINE  
Water Wheel**Beyond all question  
one of the best  
wheels on the mar-  
ket, and is fully  
guaranteed.**Portable & Stationary Engines  
AND BOILERS,  
Grist & Flouring Mill Machinery.**



# Read What a New York Miller Says of the Case Company.



OFFICE OF PETER SNYDER.  
DEALER IN FLOUR, FEED AND LUMBER.

MANLIUS STATION, N. Y., October 23, 1889.

The Case Manufacturing Company, Columbus, Ohio:

GENTLEMEN: After running my mill over two months, I feel it my duty and in justice to you to state that I am more than pleased with the mill you built for me. It started like a clock "from the word go". My flour is discounting the fanciest brands of flour in the market. My clean-up is equal to any mill in the State. I will say that the Case Rolls and Flour Dressers cannot be beaten in the world for light running and ease of access to all their parts. I would advise any miller building a new mill or remodeling an old one to place their contract with the Case Company.

Thanking you for the prompt and efficient manner in which you furnished my machinery in so short a time, after so great a loss and damage by fire burning your works, and with the best of wishes I remain,

Yours respectfully,

PETER SNYDER.

For full particulars regarding the best FLOUR OR CORN MILL MACHINERY, address



## THE CASE MANUFACTURING CO., Columbus, Ohio.

### TRADE NOTES.

**THE NATIONAL PULLEY COVERING CO.,** of Baltimore, have recently received an order for their covering for a pulley 16 feet in diameter running a 26-inch belt. Their October business came from 23 States, a large amount of this business coming from concerns who first made trial of their goods, being skeptical as to the remarkable results obtained from the use of this "covering," their continued orders showing their faith in it.

**A SATISFACTORY PAINT.**—The Richmond Iron Paint Co. invite trial of their weather, water and fire-proof metallic paint. It is claimed to never crack, blister or peel, is equally well adapted for tin, zinc, copper, iron, shingle or board roofs, and is particularly suited for damp or imperfect walls. The company are also agents for the Vulcan and Solteria paints, which are well and favorably known to the trade. They need agents for their own line of goods for Maryland and Southern territory and invite correspondence. Address N. T. Pate & Co., 1007 E. Cary street, Richmond, Va.

**RAILWAY, MINING AND MILL SUPPLIES.** The Southern Equipment Co., Chattanooga, Tenn., though but recently organized, have secured already a gratifying share of patronage and report prospects good. The company make a specialty of railway, mining and mill supplies, and furnish all kinds of labor-saving appliances. Office 5 and 8 Montague Block, Chattanooga, Tenn. The company has placed several good orders already. Among them is a Shay locomotive and two diamond truck logging cars to Perkins Manufacturing Co., of Augusta, Ga.; a Shay locomotive and four cars to Stone & Grier, Beechill, Ga.; a Shay locomotive, one car and corrugated iron roofing for planing mill to John A. Mills, Keyser, N. C.; a Shay locomotive, 3 flat cars and 4 miles steel rail to Sistrunk & Jordan, Tallahassee, Ala.

**INVESTORS** would do well to give careful attention to the card of Messrs. Munson & Bro., of Denison, Texas, which appears in this issue, tersely setting forth the merits of that thriving young city of the Southwest as a field for the profitable outlay of capital. One must bear in mind that Texas is an empire in itself so far as area goes, and when one reflects that a vast population will crowd its cities or reap a living from its broad prairies in the near future, the lesson for investors becomes plain. It is simply invest at once, and reap the full profits of ventures. Coke, coal, magnetic and hematite iron ore lie near to the city's doors, and vast stores of timber are within ready reach. The city should become the Pittsburgh of the Southwest, for Texas alone in the near future will afford a home market which it will require an army of workers to supply.

### Solid and Sensible.

One of the most striking, because one of the most liberally projected, of the great enterprises now on foot in the South is the scheme of the East Tennessee Land Co., the advertisement of whose plans appears in this issue of the MANUFACTURERS' RECORD. The company, as already stated, is under the management of General Clinton B. Fisk, president; A. W. Wagnalls, treasurer; A. A. Hopkins, secretary, all of New York, and Frederick Gates, of Tennessee, manager. They have a capital stock of \$3,000,000, covering 300,000 acres of land in six counties of East Tennessee, mostly contiguous. This vast tract is estimated to contain 250,000 acres of land rich in coal for domestic and coking purposes; 40,000,000 tons of the best grade of Bessemer steel ore and 600,000,000 feet of white woods, oak, pine, chestnut and other timber, with three iron mines upon it in successful operation.

The purchase was not made at haphazard, but was the result of careful prospecting and actual survey, and gives the company one of the finest properties in the country. The main purpose of the company is the development of the tract by the establishment of "Harriman," an industrial center, and "Deermont," an upland town on the great Cumberland plateau, 2,000 feet above the level of the sea. Two great trunk lines already pass over the site of Harriman, and three other railroads are rapidly centering toward it, while more are projected radiating from it, thus rendering the town the likely focus of many hundred miles of naturally rich territory. Harriman has all the requisites for fulfilling the expectations of its founders, who wish to make it a progressive industrial center. The climatic conditions, backed by the company's abundant means, must make Deermont a popular health resort. The broad plans and liberal policy of the company cannot but attract attention wherever they are presented.

Half a million dollars' worth of the company's stock as yet unsubscribed is offered for sale at par, in shares of \$50 each, twenty per cent. down and the balance in monthly payments of ten per cent. This stock is non-assessable. It is based on solid value and will be received by the company at par in payment for farm lands or city or town lots, with such a discount as will give until July 1, 1890, every \$100 of stock the purchasing power of \$133.33 cash. Certainly nothing more liberal could be expected, and the solidity and repute of the management are in themselves a guarantee of the meritorious character of the enterprise, the stock of which bids fair to largely appreciate in the near future. All communications should be addressed to A. A. Hopkins, secretary, 96 Broadway, New York, but drafts, checks, etc., should be made payable to A. W. Wagnalls, treasurer. An illustrated prospectus containing full particulars will be mailed upon application.

**MEDALS FOR EXCELLENCE.**—At the Piedmont Exposition held recently at Atlanta, Ga., Messrs. E. & B. Holmes, of Buffalo, N. Y., received six medals on exhibits of wood-working machinery turned out from their factory.

**COTTON AND WOOLEN MILL AT AUCTION.** The Terrell Cotton & Woolen Mill, located in Terrell, Texas, as advertised in this issue, will be sold at auction on January 22 next. The mill is a commodious structure containing machinery needed for 2,200 spindles, and has 36 looms in position. Address Terrell Cotton & Woolen Manufacturing Co., Terrell, Texas.

**A READY-MADE BUSINESS AT A BARGAIN.**—A completely equipped planing mill, now in successful operation, located in Chattanooga, Tenn., is offered for sale. The mill, machinery, stock in trade and good-will will be sold on easy terms, while the real estate will be leased for a term of years. Address R. P. O. box 573, Chattanooga, Tenn. See notice in this issue.

### "THE COLLIAU"

NEW AND IMPROVED  
**HOT BLAST CUPOLA,**  
(patent March, 1884), and New  
Smokeless and Automatic Feed  
Roller (pat. 1886, in U. S.)  
Correspondence solicited for  
plans of foundries and the eco-  
nomical working of cupolas, the  
saving of fuel in melting iron  
and steel, and in the production  
of steam. Address **VICTOR  
COLLIAU,** Mechanical Engineer  
and Architect, 287 Jefferson  
Avenue, Detroit, Mich.

### FOR Ice-Making & Refrigerating MACHINERY,

ADDRESS THE  
**Ring Refrigerating & Ice Machine Co.**

OFFICE:  
**213 CHAMBER OF COMMERCE,  
ST. LOUIS, MO.**

**Oilless Bearings.**  
They will run for years  
without oil. Perfectly  
clean. No cutting or  
danger of fire from  
overheating. Send for  
New Circular of Interest  
to users of Loose  
Pulleys.

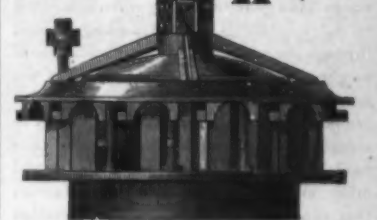
North American Metal Co., 37 Bleeker St., N.Y. City.

### DON'T BUY AN ENGINE OR BOILER

Until you have seen our circulars. Engines complete  
from 5 to 110 horse power, both Vertical and Hor-  
izontal, at prices below those of other reputable mak-  
ers. 1400 in use. Boilers of every style. Auto-  
matic Engines for Electric Lights. Centrifugal  
Pumping Machinery for Drainage or Irrigation.  
Established 25 years. Perfect satisfaction guaran-  
teed. Ask for Circular M and address

**Morris Machine Works,**  
BALDWINVILLE, N. Y.

### SUCCESS Water Wheel.



This Wheel is strong and durable. Excelled  
all other wheels in the great trial tests. Is in use  
all over the nation. I also make a specialty of

**HEAVY GEARING & MACHINERY**

For Paper, Cotton and Grist Mills.  
**S. MORGAN SMITH, York, Pa.**

### THE IMPROVED LANCASTER Turbine Wheel.



Write for Descriptive Catalogue.

Lancaster Turbine Wheel Co. Lancaster, Pa.

### HUGHES STEAM PUMP CO.

CLEVELAND, O.  
MANUFACTURERS OF  
Single, Duplex and Compound Pumps  
FOR ALL DUTIES.  
WATER WORKS PUMPING ENGINES.  
SEND FOR CATALOGUES AND PRICE LISTS.  
Donagan & Swift, New York Agents.  
T. R. WINGROVE, 324 NORTH ST.  
BALTIMORE AGENT.



**PERFORATED METAL  
FOR  
COTTON SEED OIL MILLS  
RICE MILLS  
MINING SCREENS &c  
THE ROBERT AITCHISON  
PERFORATED METAL CO.  
16 Van Buren St. Chicago, Ill.**

## The Markets.

OFFICE MANUFACTURERS' RECORD,  
BALTIMORE, November 13, 1889.

Another week of uncertainty in the iron trade is to be noted. The two reasons to be assigned for the quiet condition of trade are: First, the high prices makers are asking for their products, and second, the heavy buying that has been done for weeks past, placing consumers in position to wait a little while to see how things are going. Buyers themselves are not certain that the present high prices and upward tendency will continue. All furnace and mill products command outside prices where early deliveries are possible. Rumors are heard on all sides of an intended advance by this or that maker, and the refusal of others to accept business at any price. Buyers, in many cases, are placing their orders on the condition that prices shall be named at date of delivery. A few furnaces will blow in in Pennsylvania, but the increased output of Northern furnaces, so far as estimates have gone, is trifling when compared to the possibilities of an expanding demand through the winter. The iron trade would be glad to know the probable extent of the new requirements. A great many inquiries are being made. Efforts are being made to ascertain the probable extent of railroad orders, both for steel rails and other material, but the only satisfaction that can be obtained is the information that large purchases of everything from locomotives down to spikes will be made. The fact is, that the railroad managers have not yet determined just how much to buy. Steel rails are very strong in Pennsylvania mills at \$31.50 to \$33.50, according to size of order. No large orders were placed last week. Inquiries were made late in the week for about 60,000 tons in mills in that State, but the quotations given do not promise immediate orders. Bessemer pig has advanced to \$20 at Pennsylvania furnaces east, and to \$21 to \$21.50 in the western part of the State, with \$21.50 to \$22 as the market price in Chicago. Spiegel is quoted at \$34 to \$34.50 at New York for 20 per cent., and ferro manganese \$85 to \$90. Billets and blooms have advanced 50 cts. to \$1.00 within a week. Coal has moved up 15 cts. per ton in the Lehigh region, and a 10 per cent. advance in wages has been granted to the furnace workers in the Mahoning valley. Symptoms of an advancing tendency and a hardening in prices can be seen in every direction. To what point this tendency may go it is impossible to predict with any safety at present. This uncertainty is creating the hesitancy noted among buyers of material.

The crude iron market is very firm, with prices in Eastern Pennsylvania at \$16, \$17 and \$18 respectively, although some makes of foundry are quoted at \$17.50 and \$19 for No. 2 and No. 1, and these prices are paid. Indications point to a very sharp demand in December, and perhaps sooner.

The car builders have been buying a good deal of bar iron at 1.75 to 1.80. Refined iron is strong at 1.95 to 2 cts. in Eastern and 1.80 to 1.90 in Western Pennsylvania. In Chicago markets common iron is 1.90 at store. The car builders are so far oversold that some of them are unwilling to even bid on new work offered. The necessities of the railroad companies may become so urgent that prices for railway supplies may be crowded up beyond a safe point.

Merchant steel of all kinds is very active. The agricultural implement makers in the West are large buyers; where orders used to be given for 25 tons, are now for 100 to 200 tons each. A good many mills have recently withdrawn quotations for both iron and steel. Makers everywhere are anxious to complete the bulk of pres-

ent engagements before entering upon new ones.

The demand for nails of all kinds is remarkable. For years past nail makers have been in the dumps over low prices and disorganized trade; they are now having their inning. Stocks are exhausted and mills and factories all oversold. Prices have advanced step by step, until now iron nails are hardly to be had at \$2.10 in Eastern markets, and steel nails are \$2.30, while in Chicago markets cut nails are \$2.40 and wire nails \$3.10, and even these figures are likely to be advanced a little.

Cincinnati markets are very strong, and large transactions in foundry and forge iron have just been closed. No quotable advance has been made, and buyers are placing orders as fast as possible.

The coke trade is strong and active, but buyers East and West have been much annoyed by slow deliveries.

The ore trade at Cleveland is very active, and Bessemer ore has advanced still further. The mining and shipping capacity is barely equal to the market requirements.

Business throughout the South is also very active. Cars are scarce and shippers and consignees are complaining, but make the best of it. More money is needed in the South, as well as better banking facilities, which the capitalists of the North will probably not be slow to provide. Most of the furnace companies in the South have long-running contracts on hand, and are making moderate margins. At Louisville quotations are, for Southern coke No. 1, \$16 to \$16.25; No. 2, \$15.50; No. 3, \$15.

### HARDWARE.

Orders are not as frequent as they have been for the past month, but this is to be expected at this season of the year. The new Tack Association is working nicely, and the advance in price has been reasonable. Copper rivets and burs are much firmer than they were, owing to an improved condition of the copper market. The Carriage Bolt Association is being firmly held to, and the market is healthy. Handled hoes are still very much demoralized, and very low prices have been given. Collections in the South and Southwest have been very satisfactory. Wrought butts are very much firmer, some factories having advanced their prices about 10 per cent. Philadelphia carriage bolts are firm, and higher prices are expected.

## DIXON'S

**GRAPHITE PIPE JOINT GREASE**  
For Steam or Gas Pipes, Bolts, Screws, etc.  
Makes a Perfect Joint that can be opened with ease in three years or thirty years.  
**JOSEPH DIXON CRUCIBLE CO.**  
JERSEY CITY, N. J.

## Cotton and Woolen MACHINERY.

50 Crompton Fancy Cotton Looms, nearly new, 36 inch reed space, for 12 Harnesses, 4 boxes at one end, 1 at the other.

My Store Houses here have over 2 ACRES of floorage, which is covered with good machinery, including nearly full systems for Cotton and Woolen Mills.

### JEREMIAH CLARK,

Lowell, Mass. Office, 63 Dutton St.

### CLARK'S

## Drying, Ventilating and Exhaust Fans

With First-Class Engine Attached.  
Get the best Fan for Drying and Ventilating in the market.



The Clark light-running Exhaust Fans. Self-oiling Bearings. Adjustable Wings; also first-class high speed Engines attached to frame of Fan when desired. Fans and Engines in combination or separate at lowest prices. Catalogue free.

GEORGE P. CLARK, Box C. Windsor Locks, Ct.



SOUTHERN AGENTS: Smith & Courtney, Richmond, Va. Atlanta Rubber Co., Atlanta, Ga. Baker, Sloo & Co., New Orleans, La.

## The "Original Gandy"

Sewed Cotton Duck Belting.

Especially adapted for Main Drivers, Saw Mills, Cotton Gins, Cotton Presses, and for all places where belts are subjected to moisture or atmospheric changes, the "GANDY" stands paramount.

For further information, prices, etc., write

**The Gandy Belting Co.**  
BALTIMORE, MD.

**THE BEST & CHEAPEST**

**IN THE WORLD**

STITCHED CANVAS BELTING

**THE CHESAPEAKE BELTING CO.**  
BALTIMORE, MD.

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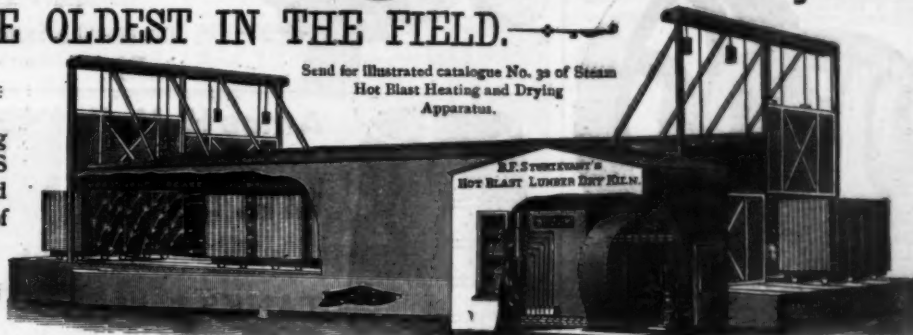
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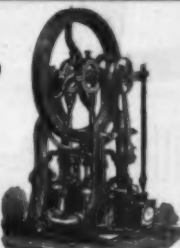
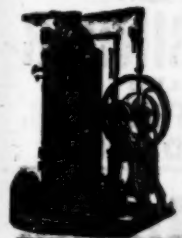
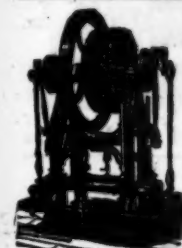
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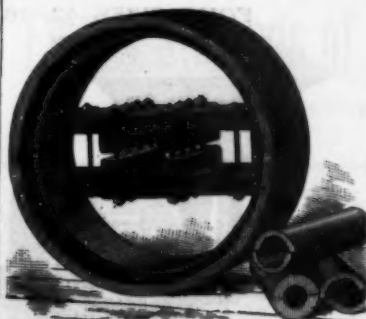


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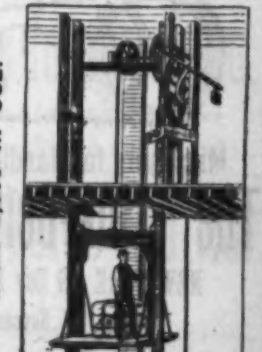
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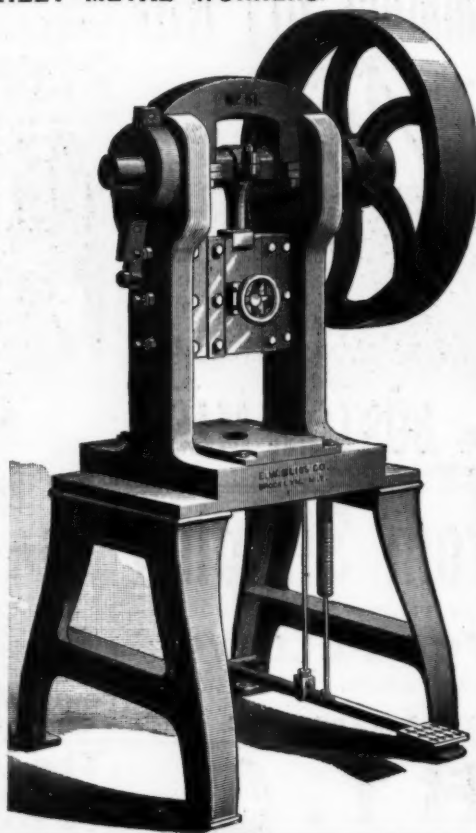
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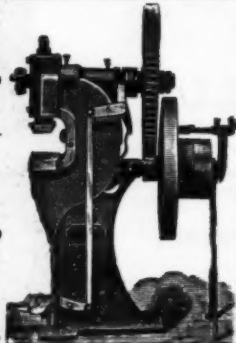
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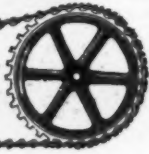
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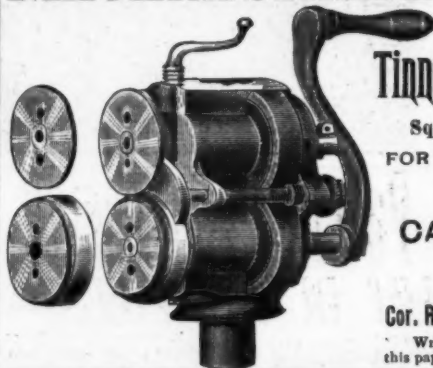
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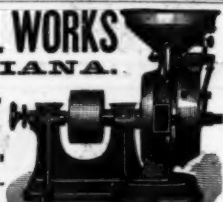
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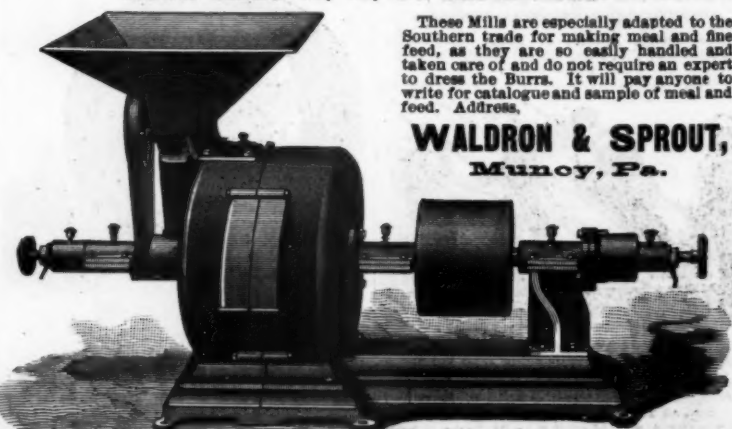
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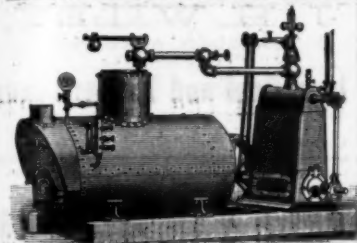
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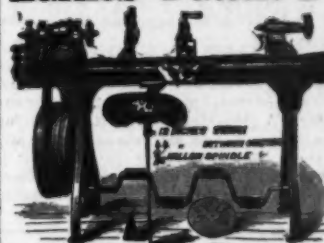
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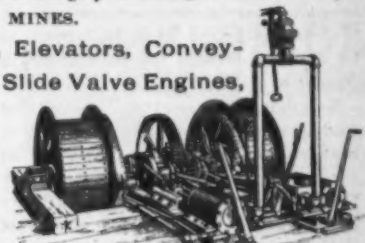
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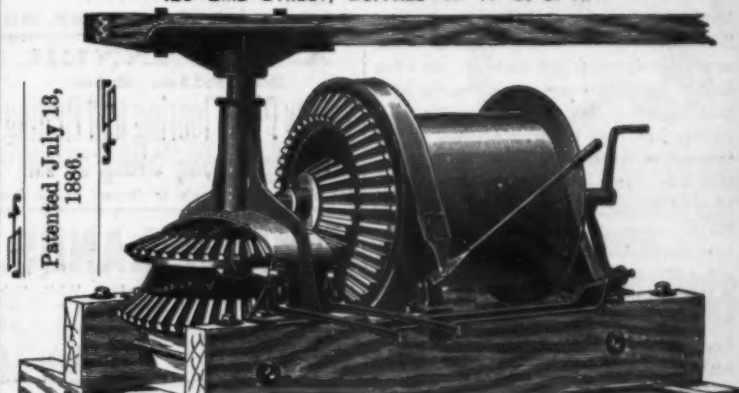
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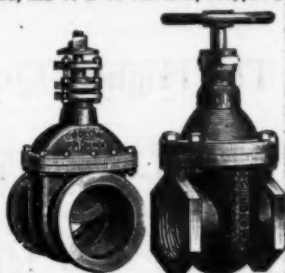
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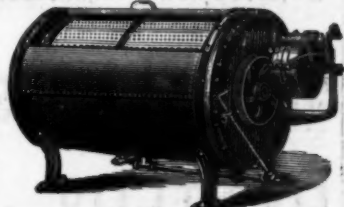
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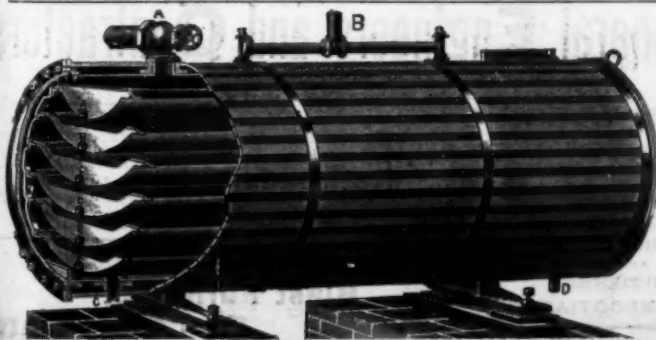
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## Eastern Lumber Markets.

[Spec. corresp'dence MANUFACTURERS' RECORD.]  
NEW YORK, November 12, 1889.

The New York lumber market presents several interesting features this week in consequence of unexpected purchases made by a number of small buyers in the city and country districts. Their purchases extend over the entire list of hard woods. A few good sales of soft woods were made, but the wholesalers are relied upon to supply these wants to the bulk of the trade from time to time as stocks are wanted.

The supply of New England spruce in this market was supposed to be large, but the liberal distribution during the past few days has run stocks down pretty low, and prices have been marked up.

There is a great deal of white pine coming in from the Lake ports, as the canals will soon close. From what we can learn, it is the intention of Michigan and Wisconsin manufacturers to enter upon logging operations on a large scale this year, and have even more lumber to start with next spring than they had last. Our information is to the effect that there is a little surplus of white pine in Northwestern markets, but, considering the increasing activity to be expected through the winter, it will amount to nothing.

Returning to the local trade, we find that dealers everywhere express a great deal of confidence in strong prices throughout the winter, and for reasons such as these: In the first place there is sure to be a heavy consumption of hard wood on account of the large amount of inside work that is to be done. Builders and contractors have had their time and attention occupied with outside operations this year, and much inside work that would have otherwise been completed, has been postponed. Then, as previously remarked, there are not a few buyers here who are apprehensive of a strike among the building trades next spring, and they think it prudent to get through as much work as possible before that time. Just in this connection it may be well to say that the wage-workers are taking more interest now in the 8 hour question; some of their leaders argue that as work is abundant, and employers forced to accept orders and execute them, it will be soon a good time to insist upon a recognition of the 8-hour day. The workers are a little afraid of the movement, and it is difficult to predict what the ultimate decision will be.

So far as prices are concerned, there is scarcely any change from previous quotations. The only concessions that are possible are from wholesalers, who are in position to immediately replace stocks sold on favorable terms; not all of them are so fixed. A good many Southern mills are oversold. Besides this, the season is winding up, and most wholesalers have only bought and piled up enough lumber to keep their regular trade going, and are therefore not anxious to unload excepting at their own prices.

We are receiving a good deal of yellow pine and there are some three or four cargoes soon to arrive; there are places and customers for all of it as soon as it is unloaded. North Carolina pine people are watching this market closely, meeting its requirements from day to day almost. Prices are unchanged all the way through.

We are being offered more or less Virginia oak, and find it suited to our requirements here. A good deal of cottonwood is arriving, and more or less cypress is constantly coming in. The receipts of Tennessee poplar are large, but nearly everything that comes in is already sold. Dealers are taking very little risk. The Association is in control, and we have confidence in the regularity of poplar prices. This market is generally supplied with an excellent assortment of all widths.

The cabinet-makers and furniture manu-

facturers are extremely busy this fall, mostly working overtime; in consequence, they are large buyers of hard wood, but they are very exacting customers in regard to quality, widths, lengths, etc., and the dealers who have the reputation of carrying the best assortments of the best lumber do business with them more quickly and to better advantage than the smaller dealers.

The Southern lumber manufacturers can rely, in a general way, upon an active market here for their products throughout the winter. A great deal of new work is being projected, and new markets are constantly opening. But in making shipments it is always well to be guided by the advice of some reputable dealer here who is in touch with buyers.

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consisting of mill, dry-house, and complete outfit of machinery for the manufacture of doors, sash, blinds and all kinds of planing mill work, now in successful operation and running full time. Owner has grown rich and wishes to retire. Will sell mill, machinery, stock in trade and good will on easy terms, and lease real estate and use of side track for a term of years. This is a good opportunity for an energetic man to step into a good ready-made business.

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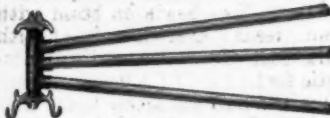
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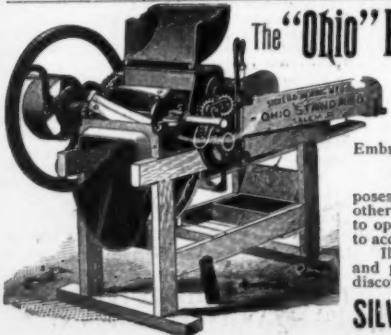
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## Sliding Doors Hung Overhead.

The accompanying cut represents a new article in builders' hardware. It was invented and patented by a practical builder, who had long felt the necessity of some device by which overhead sliding doors could be made to shut closely and the warp and spring of their lower ends be overcome.

The floor plate is only 5-16 inch thick, beveled each way, and is screwed to the floor midway between the doors, and the bolts are mortised flush in the faces of the doors at their lower ends. The bolts are then set by the machine screw in the face so they will project below the lower edge of the door just far enough to catch in the guiding groove of the floor plate, but not long enough to drag on the floor, so that the door in closing will be guided to the center of the floor plate.



MARTIN'S GUIDES AND FOOT LOCKS.

These guides may be used for locking one-half of a pair of doors, when desired, by dropping the bolt into the slot provided for it in the floor plate, or they form a perfect lock for a pair of doors when used in connection with a hook, as the floor plate holds them in the center of the opening and will not allow them to move on their hangers.

They are also said to be perfect stops to prevent the doors from sliding back into the pocket, by placing the guide which comes with the hanger so the bolt will strike against it when the door is pushed back to its proper position.

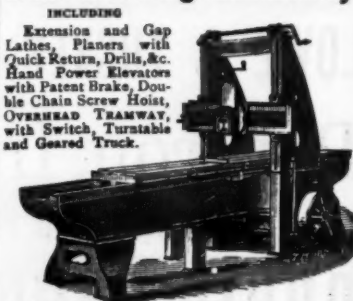
This simple device, it is claimed, has been adopted by all architects who have examined it, and become a positive necessity to overhead hanging doors, and is being rapidly introduced into all first-class houses. The manufacturers are the Empire Portable Forge Co., of Lansingburg, N. Y.

**EMERY GOODS AND GRINDING MACHINERY.**—The Norton Emery Wheel Co., Barber's (Worcester), Mass., publish an elegantly illustrated descriptive catalogue of their emery and corundum goods and grinding machinery, containing cuts, diagrams, price-lists, etc. The company's long experience enables them to supply the best appliances made of the best materials and warranted to satisfy the demands of the trade.

**ICE-MAKING AND REFRIGERATING MACHINERY.**—Seldom, if ever, has there issued from the press a handsomer or more thoroughly descriptive trade publication than the illustrated catalogue of the Consolidated Ice Machine Co., of Chicago, Ill. The company furnish ice-making and refrigerating machinery and apparatus for breweries, packing-houses, distilleries, oil refineries, chemical works, dairies, fruit houses and cold-storage depots.

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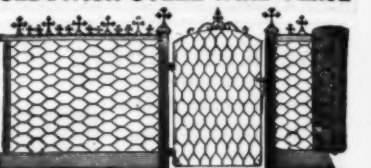
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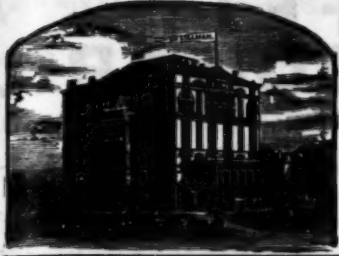
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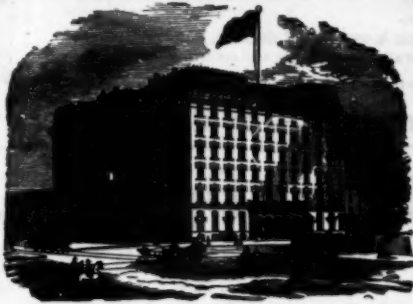
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## TRADE NOTES.

**PUMPS AND HYDRAULIC MACHINERY.**—The Silver & Deming Manufacturing Co., Salem, O., issue an illustrated wall card descriptive of their various forms of pumps. A complete descriptive catalogue is mailed to dealers upon application.

If you want a good, reliable weekly paper from Louisiana, send one dollar to Bienville New Era, Gibsland, La., and get it one year. Or if you want a Louisiana home or a good location for foundry or factory, address its editor, Thos. J. Mangham, Gibsland, La.

**A TRIUMPH AT PARIS.**—The Stilwell & Bierce Manufacturing Co., milling and hydraulic engineers, of Dayton, O., were awarded the grand gold medal at the recent Paris Exposition for their celebrated Victor turbine. They report their foreign sales widely extending.

AMONG recent letters received by the Case Manufacturing Co., Columbus, Ohio, reporting satisfaction with their machinery, is the following:

W. C. MANSFIELD & CO.,  
Merchant Millers.

CLEVELAND, TENN., Aug. 29, 1889.

Case Manufacturing Co., Columbus, O.:

Gentlemen—If we were to build a hundred mills, we would not permit any other than the "Case Roll" to enter them. They are the best roll on earth. Yours truly,

W. C. MANSFIELD & CO.

THE Staunton & West Augusta Railroad Co. has, it is stated, let the contract for the construction and equipment of their road to the New York Mining & Construction Co., of which Mr. C. G. Dyott, of 52 Wall street, New York, is president. The road is to be some 250 miles long, all in Virginia and West Virginia. The construction company named owns a large tract of land in Virginia containing valuable deposits of coal, lime and iron suitable for Bessemer steel. The ore is very "free," and yields a high percentage of iron. It is proposed to push both these enterprises rapidly forward. Work will begin at once.

**MILLING MACHINERY AND APPLIANCES.** Chase & Son, mechanical and hydraulic engineers, 234-236 Federal street, Portland, Me., manufacture and supply a varied stock of the best machinery and appliances for milling purposes, including grinding, crushing, sawing and planing machinery, including water wheels, boilers, engines and millmen's supplies. They issue a full descriptive catalogue, which will be mailed on application. In their plants Corliss automatic engines are employed as being the most economical for the work to be done. The catalogue is filled with elegant photographs and photo-gravures of the apparatus which the company supply, with descriptive letter-press and a strong array of fac-simile testimonials from patrons throughout the country.

AN honor has just been conferred upon a prominent citizen of Cincinnati which is calculated to make any man very proud. Mr. W. H. Doane, president of J. A. Fay & Co., has been decorated with the ribbon of the Legion of Honor. He is among the few Americans who have received this distinction. J. A. Fay & Co. have in the Exposition an exhibit of wood-working machinery which has attracted more attention than almost any other exhibit in the machinery department. The display is in a prominent place and is constantly a center of attraction. At the distribution of prizes this exhibit, brought into comparison, as it is, with the most ingenious machinery of all countries, has yet received the grand prize. And now comes this additional honor as a deserved tribute to the inge-

nuity and excellence of American machinery. Mr. Doane felt confident that the grand prize would be awarded to his machinery. But the ribbon of the Legion of Honor comes as an unexpected and most welcome surprise. Mr. Doane is very much delighted; for while many prizes of various grades have been awarded to American exhibitors, but few have received this especial and most honorable distinction. It is another case of Ohio to the front.—Cable to Cincinnati Commercial Gazette.

DR. H. G. TORRY, a well-known scientist, has sent the following letter to the Magnolia Anti-friction Metal Co., New York, N. Y.:

"At your request I have made several friction tests of journal bearing metals. Those selected were your own Magnolia metal, taken from the stock as made day by day, and Hoyt's genuine babbitt, and the deoxidized genuine babbitt, the latter two supposed to be the best of their class. The machine used was a 5-inch shaft keyed on a 3-inch shaft, lubricated with sperm oil, 5-inch shaft running in the oil. With light pressures and slow revolutions of shaft the metals showed little difference, but with rapid revolutions and heavy pressures Magnolia metal showed great superiority."

A test of these metals for one hour was made, and from the detailed statement given we take the following summary: "Magnolia ran full time free without melting out or stopping machinery. Hoyt's melted and stuck to shaft at end of 45 minutes. Deoxidized genuine babbitt melted and stuck to shaft at end of 55 minutes."

MR. H. W. CALDWELL, manufacturer of the Caldwell conveyor, Chicago, Ill., in a letter to the MANUFACTURERS' RECORD says: "During the season just closed we have furnished some 75 cotton-seed oil mills in the South with Caldwell conveyor, buckets, bolts, belting, shafting, pulleys, elevator boots, perforated metal, sprocket wheels, gearing and drive chain. We have some very flattering comments on our new buckets, the Caldwell patent corrugated, from such worthy and influential sources as Mr. John Oliver, president and treasurer of the Gate City Oil Co., Atlanta, Ga., who says: 'Think this elevator cup is exactly what is needed, as it certainly has far greater strength than any other cup we have seen.' The Savannah Steam Rice Mill Co., Savannah, Ga., say: 'We are so well pleased with the buckets sent us that we enclose order for more.' Mr. J. H. Thomas, superintendent of several mills, says: 'I would use no other.' E. W. Thompson, chief engineer Southern Cotton Oil Co., says: 'We have started the elevator; in fact, have been running it several weeks, and it is the nicest thing I ever saw. The new cups that you sent for it are absolutely perfect, and I will never use any other.' This is the largest elevator of the kind in the United States, having belt 30 inches wide and two 14x6½-inch buckets, put together lengthwise on this belt. Certificates from such high order of intelligent judges seldom fall to any article, in the course of business, unsolicited. Your paper has been a valuable adjunct in our season's trade."

WM. SIMPKIN, A. S. M. E.

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### The Corey Grate Bar.

This grate consists of single bars ¾ thick at top and ¾ at bottom, sides being concaved, and gives ¾ inch air space, with only ¾ iron to hold the heat. Bars are mounted on vibrating bearings, insuring by its operation a clean fire and economy of coal.

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## The Wenstrom Dynamo.

INCANDESCENT AND ARC LIGHTING.

For Residences, Factories and Central Stations. Absolutely Safe. No Danger to Life or Property. Simple, Compact and Durable.

We guarantee that it will give 25 per cent. more light per horse-power, whilst the speed required is only about one-half of that of any other system. It is economical in price and is the only Dynamo manufactured in the South. We also manufacture

MOTORS from 5 to 50 Horse-Power,

and our Dynamos and Motors require no experienced labor to operate. All parties contemplating putting in Electric Plants would do well to correspond with us.

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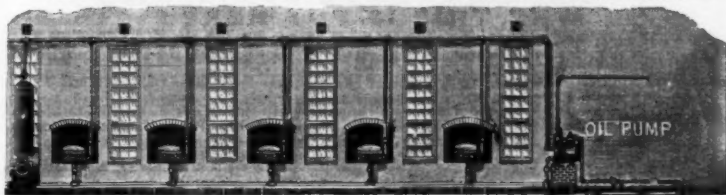
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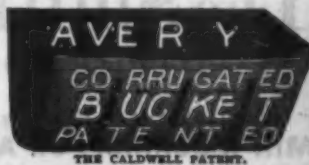
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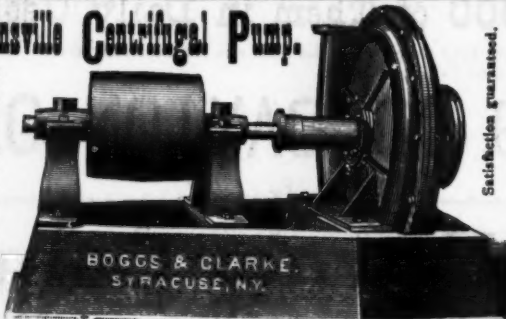


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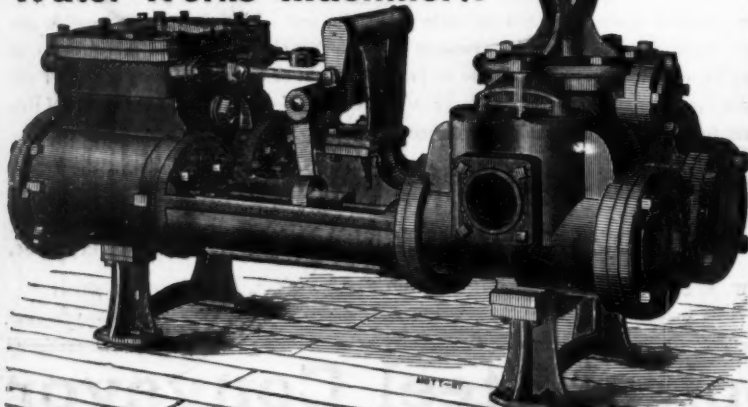
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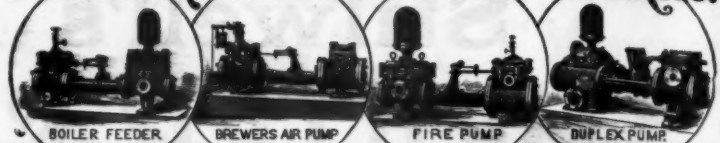
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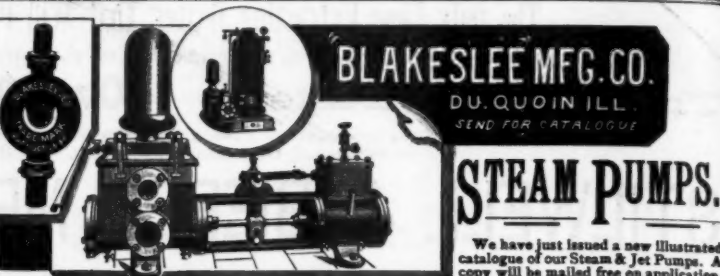
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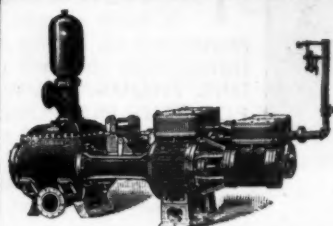
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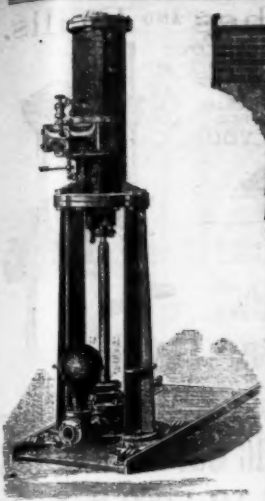
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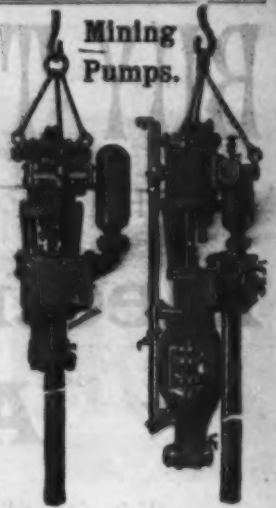
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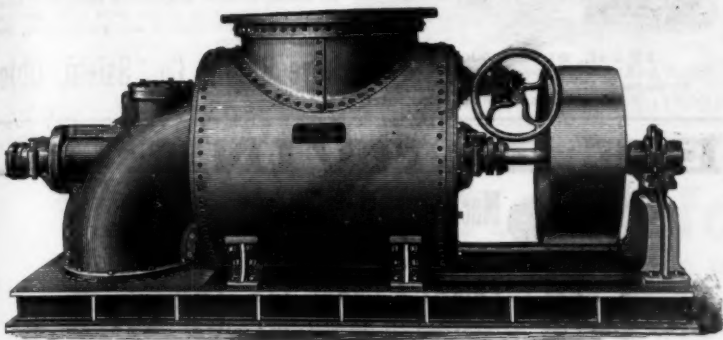
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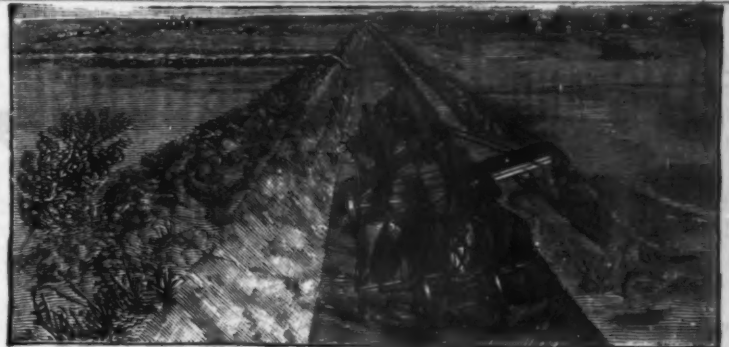


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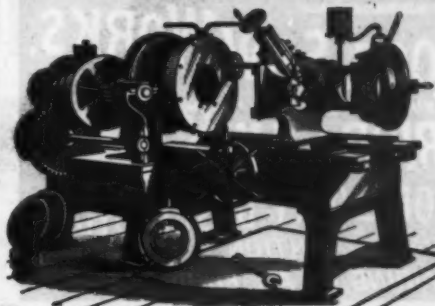
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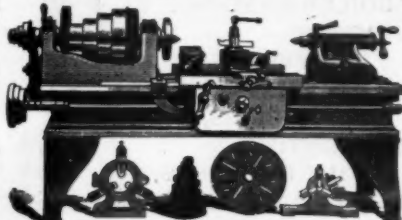
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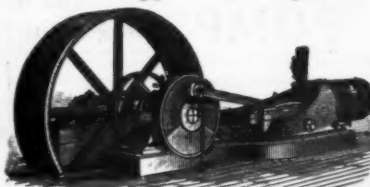
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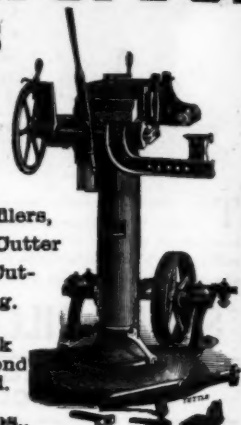
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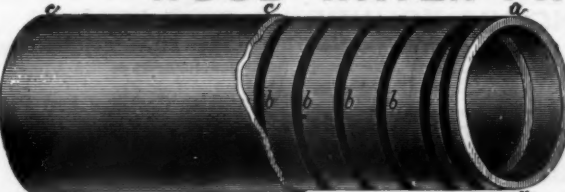


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